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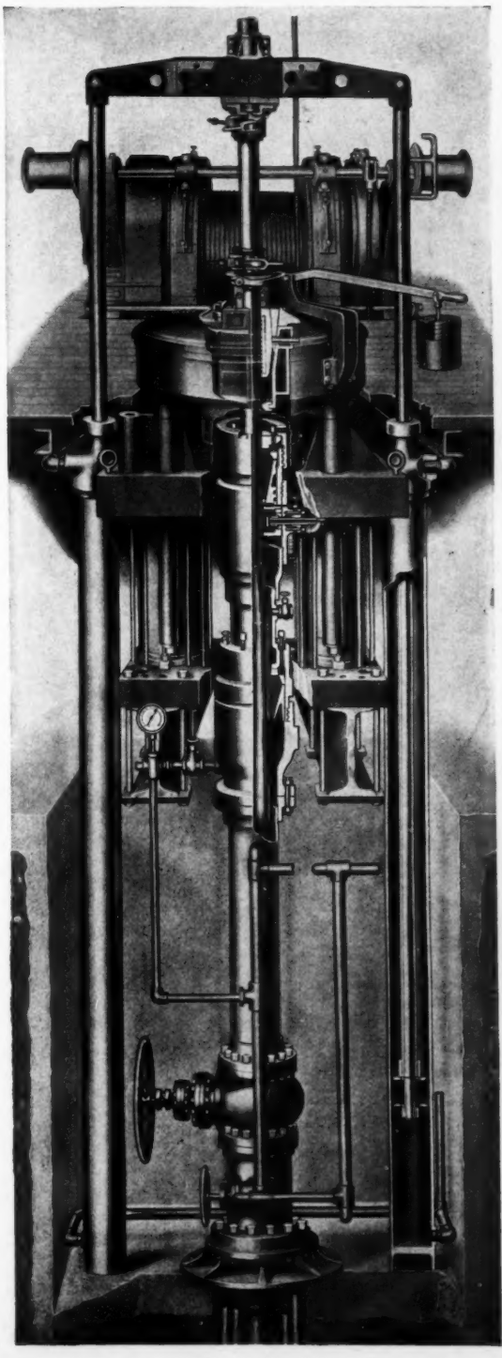

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TABLE OF CONTENTS

News Developments

Summary of Situation—By ANDREW M. ROWLEY 7
The Bulletin Board 8
Why the Discrimination? (Cartoon) 9
New Emergency Committee Named in California to Secure Agreement—By L. P. STOCKMAN 10
Better Understanding of Oil Problems Attained Through Compact Meeting—By ANDREW M. ROWLEY 11
Gasoline Output and Demand at High Record 12
Wilcox Sand in Fitts Pool Designated as Second Producing Zone in Field—By L. G. E. BIGNELL 13
Texas Legislative Session Overhangs Situation in East Texas—By L. E. BREDBERG 14
Texas Operators Considering Rodessa Await Outcome of Tri-State Meeting—By NEIL WILLIAMS 15
Natural Gas News 16
Natural Gasoline News 16
Pipe Line Progress 17
Refinery Projects 17
World's Most Powerful Diesel Engine May Haul Journal Train 18
Obituary 18
Natural Gasoline Output Increases in July 21
News From Foreign Lands 22
Editorials 24

Field Operations

West and North Texas—By L. E. BREDBERG 55
East Texas—By L. E. BREDBERG 60
Southwest Texas—By GEORGE WEBER 61
Rocky Mountain Area—By TOLBERT R. INGRAM 62
Gulf Coast—By F. L. SINGLETON 65-67
Central West—By GEORGE A. WHITNEY 66
California—By L. P. STOCKMAN 68
N. Louisiana-Arkansas—By J. R. CRUMPTON 70
Eastern Fields—By STAFF CORRESPONDENT 72
Oklahoma—By JAMES McINTYRE 73
Canada—By VICTOR LAURISTON 77
Kansas—By JAMES McINTYRE 78
New York and Pennsylvania Gas Fields 80
Michigan—By PAUL A. ELLIOTT 81
Wildcat Operations 85-98

Engineering and Operating

Engineers Surmount Natural Obstacles in Laying 24-Inch Texas Gas Line—By L. G. E. BIGNELL 26
Construction of Valley Line and Refinery Nears Completion—By GEORGE WEBER 27
Separation Through Petroleum Hydrocarbons Effected Through Use of Silica Gel—By BEVERIDGE J. MAIR and JOSEPH D. WHITE 29
Extensive Research to Determine Methods for Testing Lubricating Oil—By C. W. WOOLGAR 34
Operating Ideas 41
Improved Film Strength of Motor Oils Result of Atlantic Refining Research—By C. O. WILLSON 43
Recent Developments in Manufacture of Steel for Oil Equipment—By GORDON F. HESS 46
Reversible Diesel Engine Successfully Drilling Well in Ventura 49
Technical Questions—By C. K. FRANCIS, Ph.D. 50
Problems From Readers—By T. F. SMILEY 53

Markets and Prices

Group 3 Market—By T. F. SMILEY 104
New York Market—By C. O. WILLSON 105
A.P.I. Refinery Report 105
Refinery Prices 106
Tank Wagon Markets 107
Chicago Market—Crude Prices 108

Additional Features

Bureau of Mines Report 83
Field Summary for August 99
Record of Oil Securities 101
Personal Paragraphs 102-103
New or Improved Equipment 109
Classified Advertising 110-111
Index to Advertisers 112
Oil Man's Calendar 112

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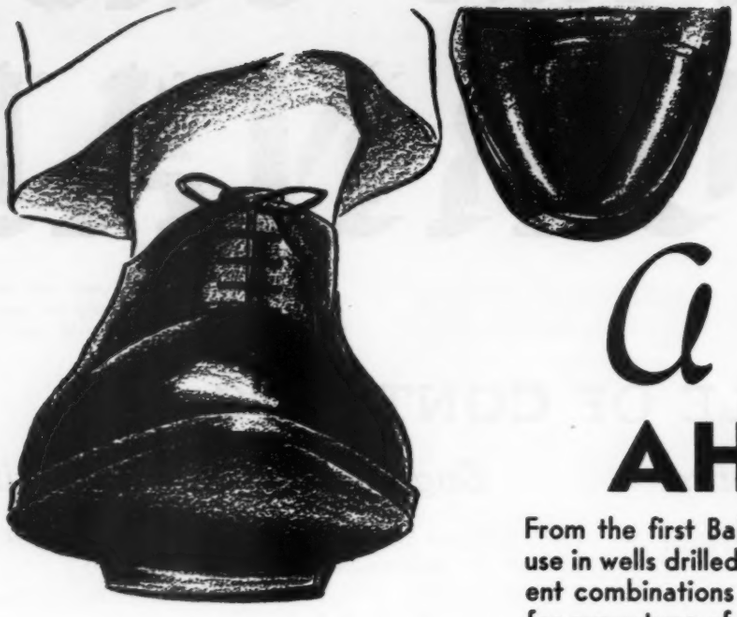

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California Reports Indicate Prices May Be Restored Around End of Month

By ANDREW M. ROWLEY

NEW EFFORTS to correct the situation in California are progressing to such an extent there is a strong belief former price schedules will be restored in probably all but one of the fields at the end of this month. Trouble being encountered in securing curtailment co-operation in one big field may result in present prices in that field being left as at present when former prices are restored elsewhere. It is pointed out there has been a steady and substantial withdrawal from storage of both crude oil and gasoline so far this year in California, the contention being made the situation has not been as bad as some in other areas have thought. No crude oil is being shipped from California to Gulf or Atlantic ports and there has not been any appreciable increase in gasoline shipments. Hence, while the situation has created considerable uncertainty regarding crude and gasoline price structures, indications are prices in other areas will not be affected.

Crude oil production last week attained its highest average since the week ending August 12, 1933 when it averaged 2,801,629 barrels daily. It is interesting to note that the production of Oklahoma last week was 171,000 barrels daily less and that of Texas 130,000 barrels daily less than during the week mentioned in August. California was 128,000 barrels daily greater while Louisiana registered the second greatest gain, 76,000 barrels.

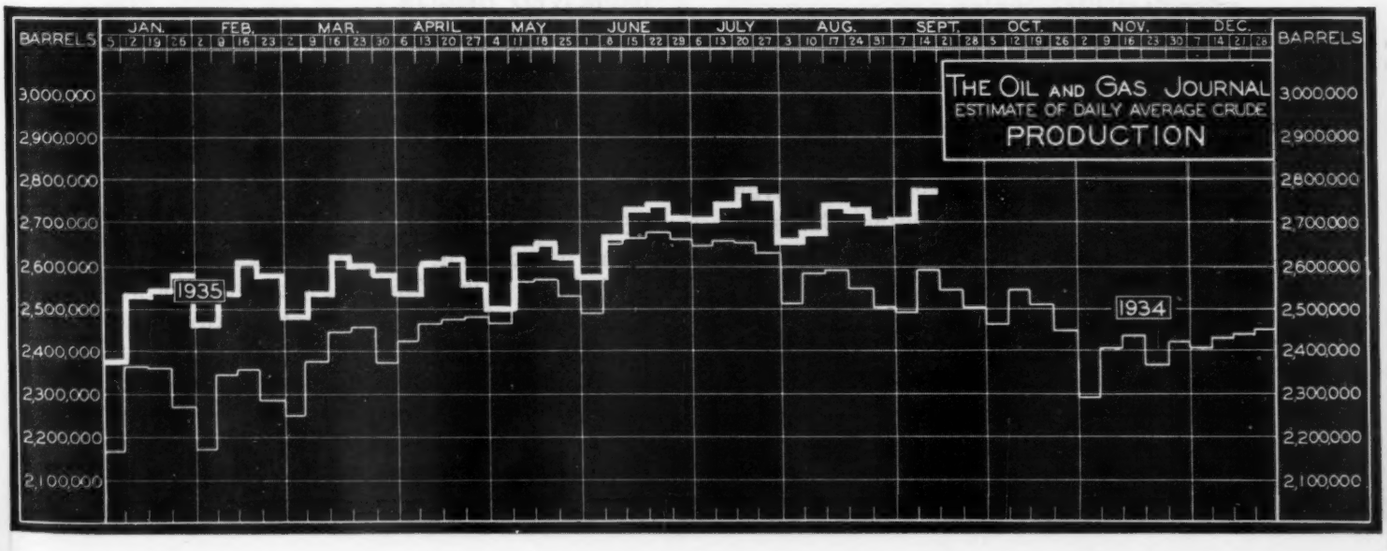
Overshadowing other field developments of the past week is the high production of wells being deepened in the old Oxford Pool in Sumner County, Kansas. That pool was opened in the spring of 1927 but the big pay was reached in August of this year when shallow producers were deepened. During the past week the Amerada Petroleum Corporation completed the largest well ever finished in Kansas. It flowed at the rate of 39,312 barrels daily. The Barnsdall Oil Company had another well which flowed 602 barrels an hour and the Amerada got another rated at 15,904 barrels. Twelve wells have a rated potential of 117,000 barrels daily.

The Rodessa situation will be considered at a meeting in Marshall, Texas, September 27. Two completions in the pool had trouble with water and gas last week but are believed to promise big producers when completion conditions are corrected. Production in the pool has been restricted to 1,750 barrels, per well, per day.

Production 2,785,843, Increase 75,985

Estimated daily average production for the week ending September 14, a comparison with previous week and one year ago follows:

	Sept. 14	Sept. 7	Sept. 15, 1934
Oklahoma—			
Oklahoma City	140,600	116,775	174,005
Seminole-St. Louis	96,425	89,525	93,665
Remainder of State	256,300	243,225	234,750
Total Oklahoma	493,325	449,525	502,420
East Texas—			
Lathrop	168,525	169,795	195,950
Kilgore	156,339	157,820	177,300
Joiner	157,620	155,965	150,550
Total East Texas	482,484	483,580	523,800
West Texas	154,127	153,143	155,425
North Central Texas	85,256	85,761	87,730
Texas Panhandle	53,056	53,820	56,375
East Central Texas	47,147	45,936	52,473
Gulf Coast—Texas	189,850	192,305	177,053
Southwest Texas	59,649	59,271	57,152
Total State of Texas	1,071,569	1,073,816	1,110,008
Kansas	147,400	128,825	126,585
Louisiana—			
North Louisiana	25,488	26,685	24,105
Gulf Coast—Louisiana	122,100	120,797	73,327
Total Louisiana	147,588	147,482	97,432
Arkansas	30,065	30,335	31,285
Eastern Fields (except Michigan)	102,000	103,000	102,200
Michigan	46,466	46,315	31,376
Rocky Mountain area	111,430	113,310	95,570
California—			
Santa Fe Springs	54,250	53,150	39,900
Long Beach	77,500	78,100	63,500
Mountain View	39,000	30,000	12,500
Elwood	12,400	12,100	10,500
Kettleman Hills	86,000	78,750	65,750
Remainder of State	366,850	365,150	301,850
Total California	636,000	617,250	494,000
Total United States	2,785,843	2,709,858	2,590,876



The Bulletin Board

EMERGENCY COMMITTEE is named in California to formulate and put into effect a new plan to curtail crude production. It is now felt former price schedules may be restored by the end of the month.

NEW GAS PIPE LINE more than 50 miles long is being laid in Texas Panhandle to handle sour gas from wells to gasoline and carbon black plants to conform with new gas conservation law.

DEEP PAY HORIZON in the Oxford Pool of Kansas, had an estimated potential production of 117,107 bbls. in 24 hours. The Kansas State Conservation Commission lowered its allowable from 6.77 per cent to 4 per cent, retroactive to September 1.

MECHANICAL TESTING of lubricating oils to determine their "oiliness" or lubricating value has proved very unsuccessful due to the difficulty of adopting the testing conditions to those of service conditions.

EAST TEXAS operators are concerned about Rodessa potentialities and meeting of the legislature. Overproduction may be decreased slightly. Confiscated oil continues to be a perplexing factor.

NEW MOTOR OILS involving the use of a chemical additive which accounts for the greater film strength have been developed by the Atlantic Refining Co. after four years of research and development.

TRI-STATE MEETING of conservation boards called by Texas Railroad Commission for September 27 at Marshall, Tex., to consider effects of possible extension of Rodessa Field into Texas and Arkansas.

INTERSTATE COMPACT meeting at Oklahoma City completed formal organization and adjourned until October 11. Proration problems in the various oil-producing states were discussed frankly with a view to remedial measures.

FRACTIONATION of petroleum hydrocarbons by filtration through columns of silica gel offers a simple method by which the aromatics and olefins may be completely separated from the naphthene and paraffin hydrocarbons.

GASOLINE PRODUCTION and demand reported at new high record by Bureau of Mines. The gain in crude production during July was insufficient to compensate for the increased demand and withdrawals from storage increased.

FITTS POOL OPERATORS agree upon new order by Corporation Commission to regard Viola lime, Bromide sands and McLish sand as upper pay section and newly opened Wilcox sand as lower pay zone, each zone to be produced separately.

IMPROVED DESIGN of oil equipment and materials used in manufacturing the equipment have resulted from extensive research with the steel company metallurgist working in hand with the producer.

REVERSIBLE DIESEL is successfully meeting all demands in drilling the Associated Oil Co. well in the Ventura Field of California. The Diesel is driving a rotary table and drawworks through a 24-inch twin disc clutch, which is operated by an air ram, and the starting, accelerating, and reversing are done by the driller by means of a small lever mounted on the driller's post.

Why the Discrimination?

—Drawn Exclusively for The Oil and Gas Journal.

New Emergency Committee Is Named in California to Secure Agreement

By L. P. STOCKMAN

LOS ANGELES, Calif.—A new emergency committee named to formulate and carry into effect a plan to curtail crude oil production in California to consumer demand is making such progress in its work it is felt former price schedules are likely to be restored at the end of this month in all but possibly one field in the State. Consideration is being given to having a committee of independent operators assigned a quota of production for their group and charged with responsibility of seeing that quota is not exceeded with another committee for the major operators assigned a quota and similar responsibility for its enforcement.

In the face of the highest production recorded since March, 1930, and the inability to secure the requisite 95 per cent of production the Committee of Seven asked the industry at large to promulgate some method of curtailment that would prove equitable and susceptible of effective enforcement. An emergency committee consisting of Ralph Lloyd, R. A. Broomfield, J. E. Wood, A. T. Jergins, J. J. Doyle, Lawrence Doane and Dana Hogan was selected to work out a program to effect immediate restoration of curtailment subject to approval of the industry at large.

PRODUCERS' AGREEMENT STATUS, SEPT. 10

Field—	June field allotment	Signed prod.	No. of Operators	Per cent of June field allotment
SAN JOAQUIN VALLEY:				
Belridge, North*	6,300	6,300	5	100.00
Belridge, South*	2,900	2,900	4	100.00
Buena Vista*	20,150	20,150	12	100 00
Coalinga, East*	13,650	13,386	4	98.07
Coalinga, West*	6,250	6,063	26	97.0
Coffee Canyon	1,650	1,328	6	80.49
Edison	1,850	1,032	5	55.78
Elk Hills*	8,050	8,030	5	99.75
Fruitvale	2,900	821	15	21.05
Kern Front	7,150	6,465	14	90.42
Kern River	4,200	3,826	27	91 33
Kettleman Middle Dome*	300	300	2	100.00
Kettleman North Dome	59,700	31,699	6	53.1
Lost Hills	5,000	4,034	5	80.68
McKittrick	3,750	2,465	11	65.81
Midway-Maricopa	33,000	31,344	89	94.98
Mount Poso	12,300	11,250	12	91.54
Mountain View	14,800	9,645	11	65.17
Poso Creek	320	298	3	93.13
Round Mountain*	3,850	3,850	4	100.00
Wheeler Ridge*	420	420	2	100.00
Others*	60	60	1	100.00
Total	209,550	165,688		97.07
COASTAL DISTRICT:				
Capitan*	1,250	1,225	2	98.00
Elwood	11,770	6,858	5	58.27
Rincon*	1,550	1,535	5	99.03
San Miguelito*	770	770	1	100.00
Santa Barbara	4,730	1,445	7	30.77
Santa Maria	5,650	5,312	8	94.01
Summerland	50	17	1	34.00
Ventura Avenue	28,860	26,891	6	93.18
Ventura-Newhall	4,540	3,820	28	84.14
Others	150	30	1	20.00
Total	59,320	47,913		80.78
LOS ANGELES BASIN:				
Alamitos Heights	2,050	1,352	7	65.95
Brea-Olinda*	10,900	10,787	8	98.96
Coyote, East*	2,650	2,530	10	95.47
Coyote, West*	9,620	9,476	1	98.50
Dominguez*	20,300	20,300	5	100 00
Huntington Beach, New	29,335	22,627	73	77.14
Huntington Beach, Old	12,900	11,720	35	90.85
Inglewood*	11,950	11,940	7	99 91
Lawndale*	140	140	5	100.00
Long Beach	63,500	48,213	157	75.92
Los Angeles	700	285	1	40.71
Montebello*	5,650	5,581	8	98.78
Playa Del Rey	12,500	11,645	50	93.16
Potrero	420	197	3	46.99
Richfield*	7,420	7,099	18	95.68
Rosecrans-Athens	2,750	2,578	11	93 75
Santa Fe Springs	35,550	28,921	18	81.39
Seal Beach*	7,250	7,250	3	100 00
Torrance-Hermosa	6,850	5,461	21	79.73
Whittier	1,070	997	4	93.18
Others	255	237	3	92.94
Total	242,860	208,446		85.83
Grand total	511,730	422,047		82.48

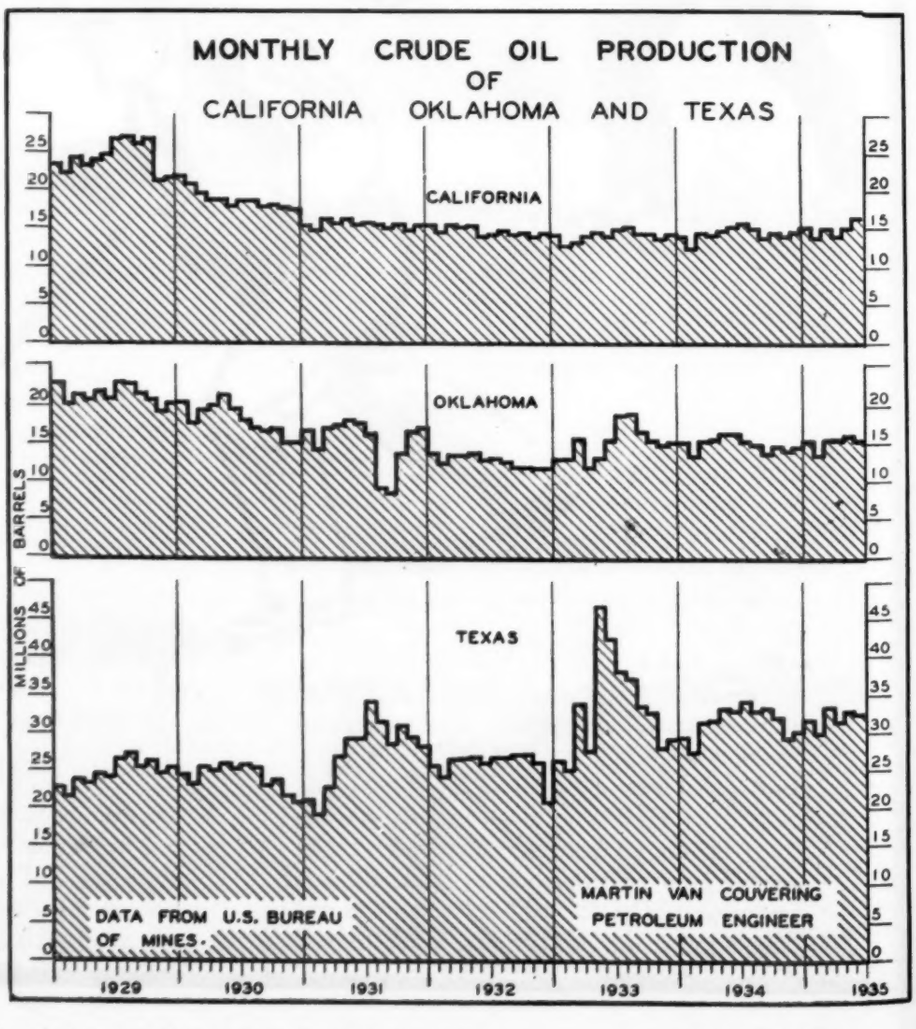
*Indicates fields with 95 per cent or more signed production.

As was predicted a week or so ago the plan that has been under consideration for the past six weeks was thrown overboard and steps undertaken to work out a new curtailment plan. The new committee has a big job on its hands because marketers demand that operators who agree to curtail must do so in fact. That this will be the rule is evidenced by the fact that the new committee is charged with the responsibility of promulgating a program that contemplates effective curtailment by independent producers to a proper figure to be determined and the drafting of a permanent program for voluntary curtailment by independent producers to be submitted to them for approval and that this program must provide the type of groups officers and committees necessary to carry on curtailment by independent operators.

This indicates that the curtailment program may possibly be split into two divisions with one in charge of a committee of independent operators and another of major companies. This has not been definitely determined but if it is worked out the major group will be assigned a stipulated quota and the independent group another quota after which the committees of their respective groups will be charged with the responsibility of enforcing curtailment.

The Committee of Seven issued a statement a few days ago to the effect that "we are returning herewith contract executed by you termed the producer's agreement and inform you that the Committee of Seven has disbanded. There are many reasons for this action the most important of which is that while the committee has labored long and hard over a period of 50 days to obtain enough signatures to complete the agreement it finds that the results are impossible to obtain. We urge that you lend the same co-operation to the new plan now under consideration and which we sincerely hope will bring order out of chaos in this great industry."

It has become quite apparent during the past week that a revision in crude oil prices will probably not be effected until the close of the current month as it will require a week or 10 days to work out an acceptable method of curtailment and secure the necessary approval of all interested operators. Disposition of crude oil that has been stored by producers has apparently not yet been given consideration but may come up for discussion in connection with the new proration program if operators hope to secure a complete restoration of prices. Major buyers probably would be rather reluctant to absorb any great quantity of crude oil on the basis of $1 per barrel unless refined oil prices would justify such action.



Better Understanding of Oil Problems Attained Through Compact Meeting

By ANDREW M. ROWLEY

OKLAHOMA CITY, Okla.—In what was generally termed the most harmonious meeting ever held to discuss matters relating to the petroleum industry, official organization of the Interstate Compact Commission was effected here last Thursday at a meeting of the governors and official representatives of the six states which have ratified the compact. The meeting also was attended by representatives delegated by the governors of three other states while official delegates from four more oil producing states were prevented by various reasons from reaching the meeting in time to attend its sessions. These official representatives were in addition to close to 100 prominent oil men from different sections of the country who attended the sessions, a number of whom were called upon, at the close of the organization meeting, for expressions covering the present situation and problems of the oil business.

Not only did each state that has ratified the compact pledge its sincere and whole-hearted support to make effective provisions of the compact and to co-operate in efforts to stabilize conditions in the petroleum industry but expressions from representatives of states which have not as yet ratified the compact indicated their belief these states would adopt necessary ratification legislation when their legislatures meet.

A Better Understanding

Probably the greatest accomplishment of the meeting here Thursday, aside from formal organization of the commission, was the creation of a better understanding of problems of the petroleum industry among the different state representatives and members of state commissions dealing with the oil business. Proration problems in Texas, the allowable in Michigan in relation to potential production of that state and conditions relating to Oklahoma, Kansas, the Rodessa Pool in Louisiana and other such related topics were discussed frankly with delegates answering questions to the end each had a better insight into what the other fellow was trying to do and seemed to gain more confidence that a sincere effort is being made to stabilize conditions.

Governor James V. Allred of Texas expressed the sentiment of those at the meeting when he said: "We have approached a better understanding of our mutual problems." He declared most of the troubles of the petroleum industry were due to the frenzy of passing in a moment legislation affecting the business and failure to give sufficient time in the sessions of the legislature to consideration of all factors involved in proposed legislation. He pledged the State of Texas to do its part in carrying out the compact in the spirit in which it was written and he and Col. Ernest O. Thompson, chairman of the Railroad Commission of Texas assured all those at the meeting Texas would continue to make every effort possible, in a sincere manner, to prevent chaos in the oil business and to curtail production always to prevent physical waste. They pointed to what had been accomplished in East Texas where wells are prorated to 3 per cent of one hour's potential flow per day to show what they are doing and what they will continue to do. Colonel Thompson said that even if reports are true that hot oil production in East Texas is 50,000 bbls. daily, the state had reduced the production recommended by the federal Government by 80,000 bbls. daily so the state's allowable, plus hot oil production was still, he said, 30,000 bbls. daily under what the federal Government had recommended as the state's share in the market for crude oil.

Official representatives of the six states which have ratified the compact were Governor Allred and Colonel Thompson, Texas; Gov. Ernest W. Marland and Tom Anglin, Oklahoma; Gov. Alf M. Landon and Homer Hoch, chairman of the corporation commission, Kansas; William M. Bell, Illinois, Hiram M. Dow, New Mexico; and H. C. Bretschneider, Colorado. Representing other states as official observers were Henry Hunt and F. E. Fry, Michigan; Jeff Davis and J. W. Olvey, Arkansas; and Pierre La Fleische, Wyoming. Dr. S. W. Shaw, of the Conservation Department of Louisiana was delegated as representative of Louisiana but was delayed by the funeral of Senator Huey Long. Neal H. Anderson, president of the Independent Oil Producers Association of California and chairman of the committee of seven trying to work out a proration agreement among producers in California reached the meeting just after it had adjourned but he conferred with the delegates from the various states. The governor of Pennsylvania telegraphed he had tried to arrange plans to attend the meeting but at the last minute previous engagements prevented. O. D. Donnell, president of the Ohio Oil Co., Findlay, Ohio, was the official delegate selected by the governor of Ohio and had arranged to attend the meeting but was prevented by other matters just as he was ready to start to Oklahoma City.

Governor Marland (standing), chairman, addressing the Interstate Compact Commission and others at the meeting. Seated, left to right; Jack Blaylock, Texas; W. H. McFadden, Ponca City and New Orleans; Governor James V. Allred, Texas; and seated on Governor Marland's left, Governor Alfred M. Landon of Kansas

The representative of Oklahoma — Governor Marland when he is present or Mr. Anglin when Governor Marland is not present—was elected permanent chairman of the Commission with the representatives of Texas and Kansas as vice chairmen. Three committees were selected, one on rules for the commission with Mr. Dow of New Mexico, chairman, Mr. Bell of Illinois and the representative of Texas, either Governor Allred or Colonel Thompson. The committee on the co-ordination of the police powers of the various compacting states is composed of the representatives of Texas, Kansas and Oklahoma. Representatives of each of the compacting states were named on the committee on conservation. It was decided to hold the next meeting of the commission in Oklahoma City on October 11 when reports of the committees will be heard and further action taken to carry out provisions of the compact.

Mr. Hunt of Michigan explained his state had failed to enact oil control legislation as it had been introduced in the legislature towards the close of the session and simply was crowded out by other business. He said he found no opposition to the compact and that with members of the legislature becoming more "oil minded" it was probable oil control legislation would be enacted and the compact ratified at the next session of the legislature. A similar statement in regard to compact ratification was made by Mr. Olvey from Arkansas. With expressions from other states as a guide it is expected the compact will be ratified by several other states within the near future.

Mr. La Fleische of Wyoming said his state is interested in some effective method of curtailing crude oil production to market requirements and if a method is found to procure orderly production, Wyoming will go along with such a plan.

Various speakers discussed the matter of physical waste and economic waste with Governor Allred and Colonel Thompson taking the position the commission should not consider price of crude oil in any action taken to curtail production. They contend the matter of price has no part in the deliberations of the commission. While Texas has a market demand law these speakers emphasized that the position of Texas is one of the prevention of physical waste.

No Cheap Oil in New Mexico

Mr. Dow was explicit in explaining the position of New Mexico. He said: "We will not let any cheap oil be produced in New Mexico. If the price drops we will curtail operations and not let any oil go out of the state. We suggest this commission have a fact finding body appointed to set allowables and that the compacting states live up to these allowables. We want to do something with this commission. We are against Federal control and want to keep the price of crude oil up."

Mr. Anglin of Oklahoma told of the value of oil production to a state and said he can remember when a 3 per cent gross production tax in Oklahoma maintained the entire state government and kept the schools. He urged uniform conservation laws and said every department of the government of Oklahoma was united in a determina-

tion to make the interstate compact succeed and accomplish something.

Patrick J. Hurley who has been active in getting the interstate compact adopted by the states said the issue which is fast becoming paramount in America is centralization versus decentralization of power. He declared the regulation of natural resources came only under the police powers of the states and that there was no power in the federal Government to regulate these resources. He said a primary purpose of the interstate compact is to permit the states to co-ordinate their police powers and pointed out that where the state power was weakly exercised that power was bound to be usurped by a stronger power.

Members of Interstate Compact Commission: Seated, left to right, William M. Bell, Illinois; Governor E. W. Marland, Oklahoma; Governor James V. Allred, Texas; Hiram M. Dow, New Mexico. Standing, H. C. Bretschneider, Colorado; Col. E. O. Thompson, Texas; Tom Anglin, Oklahoma, and Homer Hoch, representing Kansas

Price Controlling Factor

Wirt Franklin, president of the Independent Petroleum Association of America stated there is no means of preventing waste without taking into consideration the price of oil. He said waste and low prices go hand in hand. He said it would be impossible for the commission to accomplish the prevention of waste without taking into consideration the price of the raw material-crude. "You have to make a product valuable before you can conserve it," was his contention.

Congressman Jed Johnson of Oklahoma said the price of oil must be taken into consideration before the question of waste can be settled and said he believed unless the oil producing states got together on this compact and worked together to solve problems of the oil business Congress would enact federal legislation regulating the business.

Axtel J. Byles, president of the American Petroleum Institute wired the meeting at the request of the executive committee of the Institute which was in session the same day. He expressed congratulations to the commission on "this constitutional form of dealing with production problems of the oil industry and hoped all the oil producing states would make the interstate compact commission the medium through which these problems might be solved."

Jack Blalock, attorney of Texas and advisor on oil matters to Governor Allred, after saying the meeting was the most harmonious of any of the 100 or more oil meetings he had attended, said he could not subscribe to the view that if the compact does not work we will get federal control. He stated we never will have federal control of the oil industry or of production as such action violates the Constitution. He suggested the commission be guided solely by the compact as ratified and not deal with prohibited matters such as price.

Mr. Anderson of California told the delegates at the meeting that, in his opinion, the situation in California would be cleared up within two or three weeks; that no shipments of crude oil were being made from California to Gulf or Atlantic ports; that there had not been any appreciable increase in gasoline shipments and that there would be none. He was confident the California situation would be found to have no effect on the remainder of the country.

Most Easterly Producer on Gulf Opens Garden Island Dome

HOUSTON, Tex., Sept. 16.—The Garden Island Dome, southeastern Plaquemines Parish, Louisiana, got its first commercial production by the completion of Texas Co.'s No. 13 Garden Island for an initial production of 500 bbls. of pipe line oil per day through a one-quarter inch choke with tubing pressure 660 pounds. Production is from the Miocene sand cored from 4,913-27 feet, total depth. Fifteen wells have been drilled by the company, two of which showed for large gas wells in sand from 1,600-1,700 feet. This is the most easterly production to be developed on the Gulf Coast, being near the mouth of the Mississippi River in Section 107-23s-23e.

Gasoline Output and Demand Attains New High Record

Daily average motor fuel production rose to a new high level of 1,339,000 bbls. in July, 1935, according to figures provided by the United States Bureau of Mines. The percentage yield of gasoline, which had been abnormally low, reflected the increased demand for gasoline and the lower demand for fuel oil, rising from 44.2 per cent in June to 45.3 per cent in July. The domestic demand for motor fuel in July also established a new record, the total of 41,203,000 bbls., being considerably above the previous record of August, 1931, and 10 per cent above July, 1934. Exports of motor fuel in July were 3,022,000 bbls., lower than in June but far above those of a year ago. Total stocks of finished and unfinished gasoline on July 31 were 56,446,000 bbls. Although the withdrawal from gasoline stocks in July (3,061,000 bbls.) was 839,000 bbls. less than recommended, current reports of the American Petroleum Institute indicate that this deficiency was overcome in August.

According to the Bureau of Labor Statistics, the price index for petroleum products for July, 1935, was 52.9, compared with 53.2 for June, 1935, and 51.3 for July, 1934.

The refinery data of this report were compiled from refineries having an aggregate daily recorded crude-oil capacity of 3,709,000 bbls. Those refineries operated during July, 1935, at 74 per cent of their capacity, compared with an operating ratio of 74 per cent in June.

The production of crude petroleum in July, 1935, amounted to 85,485,000 bbls., a daily average of 2,757,600 bbls. This average represents an increase of 13,000 bbls. over that of June, 1935, and is 133,800 bbls. (5 per cent) higher than July, a year ago. The excess of actual production over the recommendations of the Bureau of Mines to Petroleum Administrator Harold L. Ickes increased slightly in July, following the decline in June.

Daily average crude runs in July were 2,739,000 bbls., or 15,000 bbls. above the average in June. Exports of crude continued to exceed expectations, the total for July being 5,832,000 bbls., or 41 per cent above the total of July, 1934. The gain in crude production was insufficient to compensate for the increased demand, hence withdrawals from storage increased. The total withdrawal from crude stocks in July was 5,406,200 bbls., which brought net refinable stocks down to 329,351,000 bbls. as of July 31, 1935.

Second Britton Producer Is in the 15,000-Barrel Class

Slick-Urschel, Inc.'s No. 1 Meeker, NW cor. Section 29-13-3w, Meeker Pool, Oklahoma County, Oklahoma, which came in two weeks ago and was acidized with 3,000 gallons, was opened for five hours on Monday of this week and produced 3,567 bbls. of oil or at the rate of 17,121 bbls. per day. It is rated as a 15,000-bbl. well. It is producing from Dolomite topped at 6,585 feet, total depth 6,757 feet, still in Dolomite.

In the Fitts Pool, in Pontotoc County, Catlett and others' No. 1 Smith, SW SW NW Section 28-2-7, a west offset to the most easterly well in the pool, had Bromide at 3,950 feet, sands at 4,050 and 4,120 feet and McLish at 4,165-74 feet. It flowed 187 bbls. through casing in one hour, and 36 bbls. through tubing the first hour and 16 bbls. the second hour.

E. H. Moore and others' No. 6 Wirick, NE NE SW Section 29-2-7, flowed 1,605 bbls. in 2 hours and 30 minutes. It had Bromide at 3,998 feet, sands at 4,095 and 4,195 feet, McLish at 4,211 feet and sandy Dolomite at 4,285-95 feet, total depth. Same operators' No. 8 Woodruff, SE NW SE Section 29-2-7, flowed 987 bbls. in one hour, and 388 bbls. in 30 minutes more. It had Bromide at 3,935 feet, sands at 4,050 and 4,115 feet, total depth 4,156 feet.

Anderson & Kerr's wildcat in NE cor. Section 15-15-3w, Logan County, was abandoned as dry. It had Wilcox sands at 6,175-90 feet and 6,260-75 feet, which were barren.

Wilcox Sand in Fitts Pool Designated As Second Producing Zone in Field

By L. G. E. BIGNELL

A considerable number of wells in the Fitts Pool in Pontotoc County, Oklahoma, have been completed by the pressure control method. Using this means of drilling into the pay zones has permitted the operators to secure complete detailed samples of the formations as penetrated and from the samples and the gauged flow of the wells as deepened it has been possible to construct detailed logs of the pay streaks.

It is usual practice to set the flow string of 7 or 9-inch casing in the upper part of the Viola lime. The hole to this point is drilled with the regular rotary outfit. After the string of casing is set in the Viola lime and cemented the equipment on the derrick is changed to the pressure control type preparatory to drilling into the Viola, Bromide and McLish pay formations.

This pressure control method consists of a set of fittings at the well head so arranged that the drill bit and pipe can be run in and pulled out of the well without opening up the casing to open flow of gas or oil. The upper end of the flow string is connected to a high pressure oil and gas separator and all cuttings are delivered into this separator along with gas and oil as it flows from the well.

The object of the pressure control method of completing wells is to prevent mud or other foreign material from entering into the porous sections of the formation as the drill penetrates them. The drilling fluid used is clear water cut by gas until its weight per gallon is approximately half of the weight of water. This column of drilling fluid will not exert a pressure against the pay formations sufficient to cause either water or ground cuttings to be forced into the pores of the producing strata and as the pressure differential is always in favor of the formation the gas or oil opened up by the drill can always flow freely into the well and escape into the oil and gas separator at the well head.

The pressure control drilling methods have been described in some detail in articles in The Oil and Gas Journal by the writer, page 23, March 28, 1935, and by K. R. Teis, production engineer for E. H. Moore, Inc., page 17, April 18, 1935.

In addition to the many advantages accruing to the operators through the use of this method of well completions it is now found a study of well logs secured under these conditions is permitting the operators in this field to agree upon plans for future production practices which might otherwise have been difficult to agree upon.

Producing Formations

The production in the Fitts Pool comes from the Viola lime, the Bromide sands, divided into upper and lower formations, and from the McLish sand below the Bromide.

It was agreed among the operators in this field that no more than one pay section should be produced at any one time through one flow string. That is if the flow string is set in the top of the Viola and the production is encountered in the Bromide sand, either upper or lower section, it would not be permissible to deepen this well into the McLish below to secure additional production from a well.

This rule was followed until it was found the division between Bromide and McLish producing zones was not as sharply marked as originally thought to be and the next step was to consolidate the three upper Ordovician pay formations into one zone and permit the oil and gas from any or all of them to be produced through the string of casing set in the top of the Viola lime.

A short time ago E. H. Moore, Inc., drilled No. 3 Atkins well in SW NW NW Section 32-2n-7e, and did not secure very satisfactory showings in the Viola, Bromide or McLish formations. After the drill had penetrated below 4,401 feet it was found the oil was coming from the Wilcox sand and this section was drilled for about 75 feet and a flow of 809.4 bbls. per hour with 6,150,000 feet of gas was secured.

While Wilcox production has long been suspected in this field this is the first well to actually penetrate this sand and complete a well in it. It therefore opened up a new problem for the operators for it added still another producing zone to the field and the order No. 8,282 issued by the Oklahoma Corporation Commission, with the full agreement of the operators, regarding the limited production through one string of casing is still in effect.

To consider this problem a meeting of the Fitts Pool operators was called for September 10 in Tulsa and it was agreed the situation could best be met by recommending to the corporation commission the following rules:

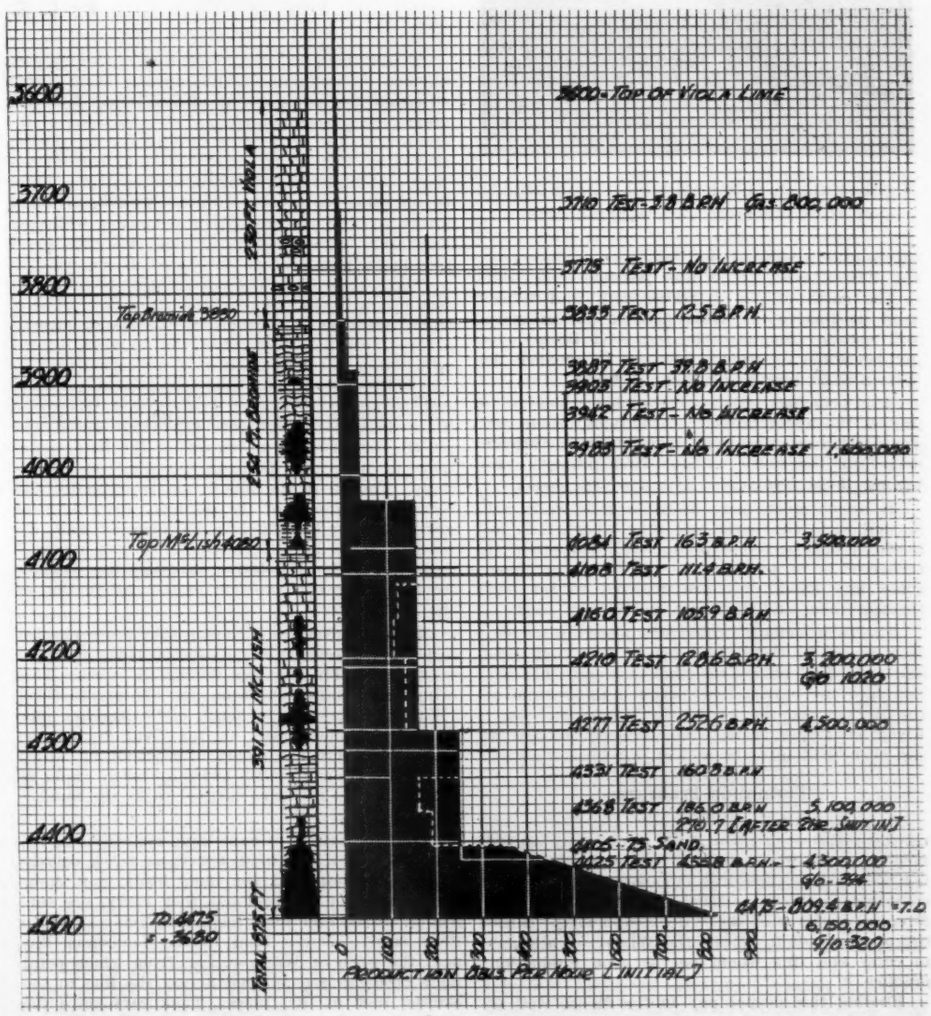
First, that the Viola lime, the Bromide sands and the McLish sand, all of the upper Ordovician or Simpson series be considered a common source of supply of oil and gas and should all be produced through one string of casing.

Second, that the new pay zone opened by E. H. Moore's No. 3 Atkins well be classified as Wilcox sand and be considered as a second or lower pay zone. This lower pay cannot be produced through the same string of casing as the upper Simpson pay zones.

Third, that the operators be permitted to deepen their wells previously completed or now being drilled or to be drilled later only into the dense barren lime approximately 250 feet below the second Bromide sand and approximately 100 feet above the top of the Wilcox sand, and no well shall be permitted to penetrate into this lime marker deeper than necessary to identify it properly.

Fourth, that no well shall be drilled into the Wilcox sand until a string of casing has been set and properly cemented so as to shut off all intrusion of water from formations above the Wilcox sand.

These rules were submitted to W. L. Armstrong, sitting as referee, on September 13, in Oklahoma City and it is understood they will re-



Completion log of E. H. Moore, Inc.'s No. 3 Atkins, in SW NW NW Section 32-2-7e, Fitts Pool, Pontotoc County, Oklahoma, secured by pressure control drilling method

ceive the corporation commission's approval and be formulated into orders governing this field as they are the wishes of the majority of operators of the field.

Wilcox Sand Limited

The finding of the Wilcox sand in No. 3 Atkins is not to be taken as evidence this sand will be found productive over the entire Fitts Pool for the bottom of this well is 3,680 feet below sea level and in the wells to the north of it water level has been established at from 3,600 to 3,640 feet below sea level so No. 3 Atkins is now bottomed below normal water level for the north portion of the field. This deeper pay is explained by faulting between the Atkins lease and leases to the north and it is possible other wells along

Night scene at Fitts Pool well during drilling in with pressure control equipment

this southern edge of the field may produce from the Wilcox sand. It is also possible some wells to the north of No. 3 Atkins may find Wilcox sand productive but from present indications it will not pay operators having good Bromide or McLish wells to deepen them on the chance the Wilcox sand production may be found.

The principal object of the new rules is to protect the lower pressure formations in the major portion of the field from damage through deepening the holes without first properly protecting these formations with lowered casing.

It seems much more probable twin wells will be drilled to the lower pay zone where it is believed it will be found productive. The other alternative is to produce the oil from the upper zones and when they are depleted to set pipe through them and drill into the Wilcox sand.

The twin wells if drilled will probably set 8⅝-inch casing in the upper part of the Viola lime and then drill an 8¼-inch hole through this section into the barren lime between the bottom of the McLish and the top of the Wilcox and set a string of 7-inch casing and properly cement it and then drill into the Wilcox sand.

Formation Pressures

It is reported the Wilcox sand now has a formation pressure of about 1,812 pounds per square inch corrected to —3,300 feet while the surrounding wells have pressures of about 1,600 pounds corrected to the same level. This 212-pound differential in favor of the Wilcox sand might cause the upper sands to permit the Wilcox oil and gas to enter and this would not be good production practice.

Finding this deeper pay in the Moore well is of much interest to the operators in this field but the fact they have got together to formulate rules for the handling of this new situation and have agreed upon them without dissention indicates there is a desire to handle this production in the best engineering manner.

Later the majority of wells now producing from the Bromide and McLish formations may be tubed and as much oil recovered as possible before effort will be made to deepen to the Wilcox sand. Where it is uncertain the Wilcox sand does exist below the McLish sand and there is a chance deepened wells will run into water it is much better to be satisfied with the present production rate rather than risk deepening into water.

On the other hand it is not a paying investment to twin an upper Simpson producer to attempt to secure Wilcox sand production unless it is demonstrated by offset wells such production actually exists.

So the rules agreed upon are both good engineering and sound from an economic standpoint. The fact many wells have detailed logs of the pay horizons is of much help in deciding such problems and the log of No. 3 Atkins accompanying this article will show quite clearly the manner in which wells completed by the pressure control methods are logged.

Future Program

It may be in future wells drilled in this field larger holes will be drilled to the top of the Viola lime and large strings of casing set there so the upper Simpson pay sections can be tested and if nonproductive a string of 7-inch casing can be set in the lime marker designated in the rules and the well then tested in the deeper horizons. There are still possibilities production may be found in the Arbuckle lime below the Wilcox sand and if any well is drilled into production in the Arbuckle lime it is probable the rules would be again modified to permit them to produce from that section. But in no event is it anticipated any well will be permitted to produce from more than one zone at a time, the three pays in the upper Simpson being now grouped as one pay zone, the Wilcox sand as another and later if Arbuckle lime is found productive it is probable it would be classified as a third producing section.

In drilling in wells using the pressure control method two traps have been used but it is probable future wells will be completed by this method using only one high pressure trap for the differential pressure between formation and trap is not in excess of 400 pounds and this is in no ways hard to handle by this system. With one trap the oil and water will pass over to lease tanks and the cuttings can be discharged just as they now are from the bottom of the high pressure trap. It will simplify connections and fittings and in no way endanger the well.

Texas Legislative Session Overhangs Situation in East Texas District

By L. E. BREDBERG

FORT WORTH, Tex., Sept. 16.—With a greater number of wells on production the East Texas situation has not got out of hand and from all appearances overproduction shows no signs of increasing in the near future. With the legislature convening this week, and with the legislature's "hot" oil investigating committee having a number of things to propound to the lawmakers, there are chances of overproduction decreasing while the legislature is in session. During the week overproduction averaged an estimated 47,000 bbls.

The suggestion to put enforcement of proration regulations in the hands of the attorney general is being talked of. Questions by the House investigators indicated they favor consolidation of responsibility for enforcement of proration.

Confiscated oil, of which there seems to be no end, although estimated and gauged when the State decided to confiscate all overproduced and pit oil, is still being moved out of the field, seemingly at will, and its by-products moved accordingly. The oil in the pits is not being materially reduced regardless of the takings. Regardless of orders that all such pits be emptied and destroyed, there have been only two pits reported destroyed. The legislative investigating committee may solve this problem to the satisfaction of the legislature.

Runs to refineries, although they are connected to a daily allowable of only 30,500 bbls., averaged over 75,500 bbls. per day during the week. This brings up another question, age old in the field. "Where do they get so much oil?" Another pipe line was found tapped in the field during the week, and there are plenty of methods by which the refineries can obtain twice as much crude as the State says they are entitled to by the number of connections.

Trucks continue to haul large quantities of by-products out of the field, but those truck drivers not having manifests for their loads, nor showing tenders for the products they carry, are subject to arrest and some have been intercepted on their trips. Trucks haul to the Louisiana line near the town of Waskom, La., from which point their products are pumped across the line to the loading rack at that place. Tank cars move the products out from the loading rack. This practice was stopped at one time, but is again being used.

"Fugitive oil," which is oil liberated on purpose or oil freed because of inefficiency or carelessness, or both, once a source of much trouble in the field as it was gathered and reclaimed in many reclamation plants, is again becoming a source of trouble.

Lake Refining Co. of Gladewater was denied an injunction in the Austin district court on September 14, to allow it to transport 132,000 bbls. of crude. An injunction was also asked for moving 64,218 bbls. The court denied the petition on the grounds that ownership and legality of the oil had not been established. A third ruling denied an injunction requested by the same refinery asking for permission to ship 93,650 bbls. of "fugitive oil" recovered from a river bed. C. A. Davenport and H. W. McCurley were also denied an injunction requesting permission to move 93,000 bbls. of "fugitive oil." Appeal was filed in this latter case.

R. W. Fair, Tyler, member of the Railroad Commission Tender Board, has tendered his resignation. He issued a statement deploring the "hot" oil situation, stating that "it isn't the tenders that come to the board that cause so much hot oil to get by. It's the oil that gets by without ever being submitted to the tender board."

WEEKLY TANK CAR SHIPMENT REPORT

	Week ending 12:01 a.m., Sept. 9, 1935	
	Cars	Gallons
Gasoline	547	4,427,708
Fuel oil	152	1,473,539
Residuum	10	81,085
Distillate	80	649,904
Casinghead gasoline	193	1,652,637
Gas oil	26	210,480
Kerosene	21	170,141
Naphtha	5	40,559
Butane	11	111,301
Topped or reduced crude	23	196,401
Total	1,068	9,013,755

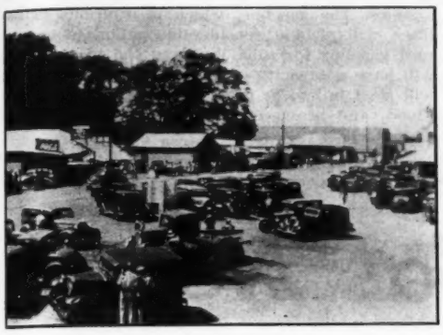
Shipped under state and federal tenders:	No. cars
Interstate	484
Intrastate	99
Coastwise	341
Total	924
Shipped under state tenders only: Intrastate movement	131
Shipped under injunction: Intrastate movement	2

CONFISCATED OIL

Shipped under state tenders: Intrastate movement	11
Total	1,068

Texas Operators Considering Rodessa Await Outcome of Tri-State Meeting

By NEIL WILLIAMS



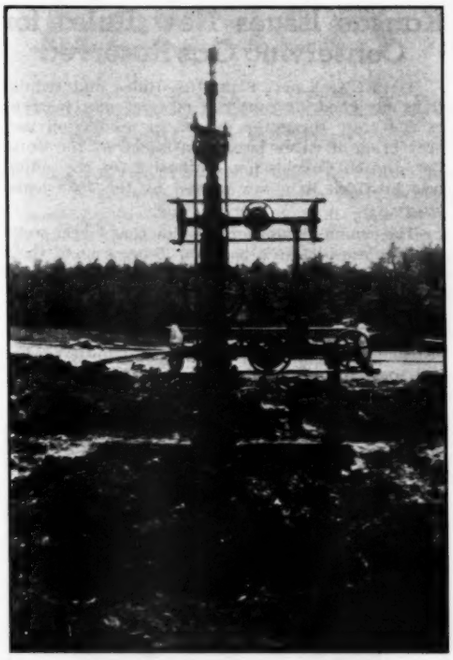
Daily scene on the main street of Rodessa, which has been transformed from a "wide place" in the road to an oil boom town

HOUSTON, TEX.—Texas operators now are waiting the outcome of a hearing to be held by the Railroad Commission at Marshall, Harrison County, September 27, before starting any extensive exploration to extend the productive limits of the new Rodessa Field of northwestern Louisiana into Texas. At the hearing, to which oil and gas conservation officials of Louisiana, and also of Arkansas, have been invited, recent requests of Texas operators for greater liberalization of proration limitations to place Texans on a more equal basis with Louisiana operators will come up for consideration.

At the same time, with the attendance of Louisiana and Arkansas conservation officials and operators, the hearing is expected to be turned into a general tri-state conference on the Rodessa situation to the end that steps may be taken to get officials and operators of the three states to cooperate in promulgating uniform rules and regulations for the effective control of development and production of a common field, should the field spread into Arkansas and Texas.

As yet, the field, except for one gas well just over the line in Texas, is entirely within the confines of Louisiana, but there is every possibility that it will extend northeasterly into Arkansas and southwesterly into Texas. The fault line, along which the field is being developed and the play taking place, has been definitely traced some 40 miles, cutting across the northwestern corner of Louisiana, and that portion in the latter state is less than 8 miles long. If the field is of any major extent at all, which it seems to be, it will extend at least that distance. It already is more than 3 miles long along the fault with no limits at either end.

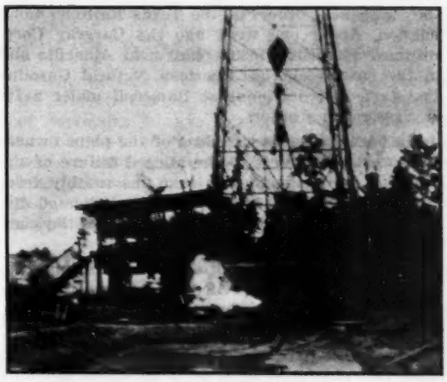
Two important factors affecting the working out of rules and regulations for control of the Rodessa Field will have to be considered at the hearing in Marshall. One of these is Louisiana's high gross production tax which is decidedly in favor of operators on the Texas side of the line, and the other is the strict proration control in Texas, which gives Louisiana operators an advantage. Operators in the Rodessa Field on the Louisiana side of the line have to pay 11 cents a barrel, but at the same time they are permitted under their proration schedules at this time to produce 1,750 bbls. a day. The same wells, if they were across the line in Texas, would be allowed to produce not more than 150 bbls. a day, this figure being the allowable in new fields. Various complications are faced in such a situation which no doubt will require considerable study, in order to effect a proper solution of the problem.



Haynes Brothers' No. 1 Lawton, second oil producer in the Rodessa Field, Louisiana

In the meantime, drilling activity is increasing rapidly on the Louisiana side of the line. At last report there were 22 active tests in the Rodessa area, of which seven were drilling below 5,300 feet, and should be completed as producers within the next couple of weeks. The appearance of water in the third oil well, which was brought in the past week, apparently did not throw any discredit on the field as a major producing area. While this well showed up the proximity of the water and demonstrated the rapidity with which the water can travel through the lime producing horizon of the field, it was reported that the well had been drilled 40 feet too deep by error and that it would be plugged back for another test.

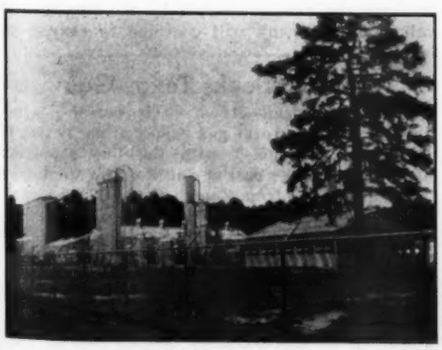
Another well was completed as a gasser, but its location may have been too high updip in the formation, placing it in the gas area zone. However, it is indicated that the well is near the gas-oil contact point, and operators are of the opinion that the well, deepened a few feet and with pipe set a little lower, will make a good producer.



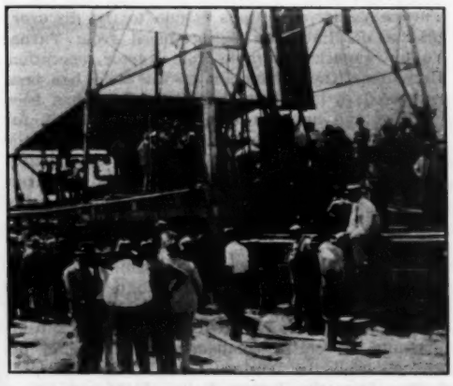
Typical drilling well in Rodessa. O'Brien Brothers' No. 1 Rodessa Oil & Land Co.

The well making water was Haynes Brothers' No. 1 Otwell, in the southeast corner of Section 15-23-16, half a mile southwest of the same operators' No. 1 Lawton, brought in the previous week as the second big producer of the field. It is located on a line between the Lawton well and the discovery producer, United Public Service Corp.'s No. 1 Young. It came in at 12:17 p.m. September 11, and up to 4 p.m. averaged 500 bbls. of pipe line oil an hour through a 2-inch choke on the casing. Water then made its appearance, showing 4 per cent with the well flowing 525 bbls. an hour. From 4 to 5 p.m. the well was cut back to 400 bbls. an hour, but water increased to 5 per cent. From 5 to 9 p.m. the flow was pinched to 200 bbls. an hour, with the fluid showing 10 per cent water. The next hour, with the flow pinched to 95 bbls., the well made 8 per cent water. At 8 a.m. the next morning, with the well making 85 bbls. an hour, there was 4½ per cent water. The well then was killed. Production from the time it came in until 7 a.m. was 7,064 bbls. of oil.

Production is from the Oolitic lime of the Glen Rose at 5,981-6,041 feet. Liner has been pulled and the hole is being cemented back to 40 feet to shut off the water, operators hoping for a good well.



United Gas Public Service Corp.'s booster station and gasoline plant at Rodessa. Although oil was discovered only last July, this field has been producing gas of high gasoline content from the same pay since 1930



Crowds gathered around Haynes Brothers' No. 1 Ottwell, which was brought in the past week at Rodessa but which later started making water. It is being plugged back

Natural Gasoline

Two Stripping Plants Operate Under Court Injunctions

Two stripping plants have resumed operations in the Texas Panhandle after securing temporary injunctions from federal courts relieving them from the terms of the gas conservation law and the subsequent orders of the Texas Railroad Commission. About one week ago the Cargray Corp. resumed operations in its plant near Amarillo and in the past week the American Natural Gasoline Co. started up its plant at Ramsdell under a 10-day restraining order.

In both instances the pleas of the plant owners were made in protest to the alleged failure of the gas pipe line companies to take gas ratably from all wells in the area. They have not indicated disapproval of the conditions of the law or the commission's orders.

Another plant, the Smith Brothers Refining Co. unit at McLean also speeded up its operations for a short period of time within the past week but without authority has again curtailed operations.

The effect of the resumption of operations in these two plants is negligible from the standpoint of the current natural gasoline market. Assuming the restraining orders will not be issued in a great number of instances and that a three-judge federal court hearing schedules September 19 in Houston will lead to an equitable ruling which will be supported by all interested parties, there is little need for concern regarding the trend of natural prices.

Drop Is Recorded in Canada's Natural Gasoline Imports

OTTAWA, Ontario, Sept. 14.—Canada imported 5,887,725 gallons of natural gasoline valued at $333,831 in June compared with 7,090,856 gallons valued at $358,084 in May. The June imports came entirely from the United States, however, while of the May imports 2,583,777 gallons valued at $108,032 came from Peru.

Imports of gasoline lighter than .8235 specific gravity in June totaled 1,842,916 gallons valued at $166,828 compared with 1,256,328 gallons valued at $112,561, all coming from the United States.

Exports of gasoline and naphtha in June totaled 29,429 gallons valued at $4,722, compared with 1,441,847 gallons valued at $158,235 in May. The May exports were increased by exports of 794,821 gallons to Newfoundland and 631,356 gallons to Colombia.

Turner Valley Naphtha Yields Distillate for Tractor Fuel

CHATHAM, Ontario, Sept. 14.—The active interest displayed by British American Oil Co. in Turner Valley operations is due to the discovery that a distillate can be produced from Turner Valley naphtha suitable for tractor operation. Heretofore, the production of the field has been restricted by the fact that the output has been wet gas and naphtha rather than crude oil, for which, owing to the volatility of the naphtha, the market is limited. Utilization of the naphtha for the more extensive production of distillate will put the field on a more economic basis and probably result in more extensive development work.

Imperial Oil, Ltd., was, till the recent entry of the British American, the only Dominion-wide refining and marketing organization active in the Turner Valley Field. At the close of 1934 Imperial Oil, through the Royalite Oil Co. and other subsidiary and associated companies, controlled 74 oil and gas wells in Western Canada, its 1934 production from the Turner Valley Field amounting to 717,501 bbls. In addition it purchased 253,142 bbls. from other producers. Though its 1934 drilling was limited to completing one well and starting another, Imperial Oil, Ltd., through the Royalite company has been steadily extending its hold on the field through the purchase of "deep lime" production and acreage.

The British American Oil Co. is interesting itself in the recent southern extension of the field, taking production from Mar Jon Oil Co.'s No. 2 in Section 28-18-2w5 and Highwood-Sarcee Oils' No. 1 in LSD 16, Section 21-18-2w5. It will also assist in the drilling of Highwood-Sarcee's No. 2 in LSD 1, Section 21-18-2w5, and possibly in the completion of Northwest Royalties' No. 1 in LSD 5, same section. Section 21-18-2w5 is immediately south of the prolific Section 28-18-2w5, and if the structure continues in that direction, it is likely to prove a large producer.

Plans For Constructing Plant Near Trinidad Announced

DALLAS, Tex., Sept. 14.—Frank L. Chase, vice-president and manager of operations, announced that the Lone Star Gas Co. would soon start the construction of a $250,000 gasoline absorption plant near Trinidad.

The plant, a high-pressure unit of modern type, will extract the gasoline from the gas run through the 100-mile gas line now being laid from the Cayuga and Long Lake Fields in Anderson County to connect with the Dallas and Fort Worth systems. The gasoline, which is injurious to the lines, will yield a considerable gallonage of natural gasoline for sale. Work on the plant, which will have a capacity of about 20,000 gallons daily, will start in two or three weeks, according to Mr. Chase, and is expected to be completed by January 1, 1936.

Natural Gas News

Kansas Issues New Rules for Conserving Gas Reserved

TOPEKA, Kans., Sept. 16.—Rules and regulations designed to conserve oil and gas reserves of the state through a check on production and prevention of waste have been issued by the State Corporation Commission. Authority for the action was provided in a law passed by the 1935 legislature.

The commission orders provide that larger wells may be prorated on a basis of 25 per cent of their potential production. Other rules govern the sale to pipe line concerns, fix oil and gas ratios when wells produce both commodities, and define measurements. Hereafter when new gas wells are brought in the gas must be confined until needed and must be protected from water. All gas must be metered at the well and when sold, and the commission must be provided with reports to show just what each well is producing.

COL. GEORGE A. BURRELL

Col. George A. Burrell, of the Burrell-Mase Engineering Co., of Pittsburgh, Pa., and Tulsa, has received the Lamme Medal from Ohio State University for outstanding achievement in engineering. Colonel Burrell is a graduate chemical engineer of Ohio State and holds the honorary degree of Doctor of Science from Wesleyan University, Middletown, Connecticut.

Gas, Water and Fire Protection Free to Tomball Citizens

HOUSTON, Tex., Sept. 9.—Humble Oil & Refining Co. has started installation of gas and water distribution systems in the city of Tomball. The company has agreed to furnish gas and water to everyone in the city, without charge, in return for certain drilling rights in the townsite.

Gas will be supplied from the company's wells in the Tomball Field and water from water wells at the company's camp, 3 miles west of the city. All costs of lines and installations will be carried by the company.

The contract remains in force as long as the company is an operator in the Tomball Field, and in the event the company withdraws from the field, the gas and water systems will be turned over to the city without cost. The company also is furnishing the city complete fire-fighting equipment.

Fort Worth Rate Stands

AUSTIN, Tex., Sept. 2.—The Texas Railroad Commission has denied application of the Lone Star Gas Co. for a temporary increase in rates and set October 7 in Fort Worth for hearing on both the company's petition and a city ordinance reducing the domestic rate.

The company tendered a bond of $175,000 with the Lone Star Gas Co., the Lone Star Gas Corp. and the officers as sureties to protect consumers in event the rate prescribed by the city is held valid. The company will continue to charge existing rates.

Saltillo Seeks Texas Gas

Saltillo, Mexican city of 60,000 persons, is negotiating for a natural gas supply from Texas. It is planned to connect with the line supplying Monterrey, 53 miles east of Saltillo. The Monterrey gas supply comes from Zapata County, Texas. Saltillo is the capital of the State of Coahuila.

Nuevo Leon City Supply

MEXICO CITY, Sept. 14.—The ministry of national economy announced that an average daily production of approximately 500,000 feet of natural gas is being obtained from well Carlos Cantu No. 2, brought in near Carlos Cantu, General Bravo municipality, Nuevo Leon State. Gas was encountered at 1,806 feet. Owners of the well propose to supply several Nuevo Leon towns with gas for industrial and household use.

Pipe Line Progress

Begin to Work on South End of Lone Star Gas Line

PALESTINE, Tex., Sept. 16.—Work on the southern end of a 109-mile 20-inch gas pipe line from Long Lake through Cayuga to Dallas is expected to begin this week. Approximately 150 men employed in laying the line for the Lone Star Gas Co. will be moved into Palestine. Acrew, working out of Malakoff, in Henderson County, has finished laying line as far south as Cayuga. More than a month will be required to lay the pipe line, the largest yet in this section.

In addition to the crews assigned to the southern part of the project, men are working on the line from Trinidad to Dallas. The project, which will cost more than $2,000,000, is employing a total of about 400 men.

New Republic Line from Plymouth Begins Operation

SAN ANTONIO, Tex., Sept. 16.—Crude from the Plymouth Field in San Patricio County, Texas, was charged to the new line of the Republic Pipe Line Co. this week, opening the new outlet to deep water transportation at Corpus Christi, Texas. The 20 mile, 6-inch line is capable of handling 18,000 bbls. of oil per day. Two 55,000-bbl. tanks were erected in the field.

At the terminus of the line, loading will be handled at present with the facilities of Texas Co. until such facilities are constructed by Republic in the near future. The oil is shipped by water to the refinery of Republic Oil & Refining Co. at Texas City. Republic Oil & Refining Co., Republic Pipe Line Co. and Plymouth Oil Co., major producer in the field, are affiliated companies.

The new line is the fifth oil pipe line to terminate in the Corpus Christi area. Humble Oil & Refining Co. operates three to its refinery at Ingleside, and Atlantic Pipe Line Co. has a deep water terminal on Harbor Island, receiving crude from the Refugio Field.

General Petroleum Increasing Capacity of Its Pipe Line

LOS ANGELES, Calif., Sept. 16.—General Petroleum Corp., California affiliate of Socony-Vacuum Oil Co., will start immediate work on the installation of 7 miles of new pipe line in Kern County to increase the company's pipe line capacity out of the Mountain View and Edison Fields. The new line will be 8 inch and completed welded. Lang Transportation Co. has been awarded the construction contract for laying this line from Mountain View to the company's Adobe pump station, about 15 miles south of Bakersfield. In addition to laying this line, General Petroleum contemplates installation of additional pumping equipment at Adobe pump station. The total improvements will cost approximately $50,000 and upon completion will increase the capacity of the company's pipe line facilities at this point from 15,000 bbls. per day to 40,000 bbls. per day. General Petroleum's Kettleman Hills-Torrance pipe line has been working to capacity and the 88-mile segment recently completed from Lebec to Torrance has proved extremely valuable from a transportation standpoint.

Kaw Pipe Line Co. Organized to Construct Kansas Line

Officials of the three companies who jointly are constructing a pipe line system from Chase, Kans., into Russell County, Kansas, with gathering lines therefrom at a meeting in Bartlesville, Okla., this week organized the Kaw Pipe Line Co. and elected officers as follows: President, B. E. Hull, president of the Texas Pipe Line Co., vice president and general manager, J. K. McGoldrick, president of the Texas Pipe Line Co. of Oklahoma; vice presidents, Ed F. Guidinger, president, Standish Pipe Line Co., and Fred K. Haskell, general manager, Empire Pipe Line Co.; secretary and treasurer, H. L. Stewart, Texas Pipe Line Co. of Oklahoma; assistant secretaries, B. A. McKeren, Texas Pipe Line Co. of Oklahoma; C. E. Murray, Empire Pipe Line Co., and F. L. Feist, Phillips Pipe Line Co. The companies who have joined in the formation of the new company and in the construction of the pipe line are the Texas Co., Phillips Petroleum Co., and the Empire Gas & Fuel Co. and their pipe line subsidiaries.

J. D. Moroney Honored

The personnel of the Bartlesville division of the Sinclair Prairie Pipe Line Co. on the evening of September 9 gave a surprise dinner honoring the birthday of J. D. Moroney, division superintendent, and his completion of 40 years service with the company. A. H. Lucas on behalf of the men of the division presented Mr. Moroney with a wrist watch.

Refinery Projects

Many Improvements Installed by Kent Oil Refining Co.

GRAND RAPIDS, Mich., Sept. 16.—Rapid progress is being made on extensive plant improvements at the Kent Oil Refining Co. plant here.

Excavation and grading for a 20-car extension to the railroad siding service has been completed, more than doubling the capacity to 35 tank cars. Additional loading rack facilities are being installed.

A new 10,000-gallon agitator has been erected and will soon be in operation providing capacity for treatment of about 40,000 gallons of finished products daily. Another 75-foot fractionating tower will be erected within a few weeks. A new power house has just been finished with space for additional boilers and another 125 horsepower boiler will be installed at once. Contracts have been let for immdeiate erection of four 100,000-gallon tanks increasing the company's storage capacity to more than half a million gallons.

Gasoline Storage at Erie

OIL CITY, Pa., Sept. 16.—Construction of 12 storage tanks at Erie, Pa., capable of holding 4,000,000 gallons of gasoline, has been announced by the Gulf Refining Co. of Pittsburgh. It is expected work on the tanks will begin within a short time. Gulf, it is said, plans to ship gasoline and fuel oil into Erie by barge from Toledo and distribute it over a 75-mile radius.

Announcement to this effect was made by A. Hunter Willis, Erie representative of the Gulf Refining Co.

The structure will be erected at the foot of Pennsylvania Ave., just outside of the city's fire zoning ordinance, at a cost of $100,000. Operations in the plant are expected to get under way within 60 days, Mr. Willis said.

Bids are now being asked for the steel construction and building work which will require the services of 100 men for at least 60 days.

The storage plant is to be built on the shore of Lake Erie just east of the Perry Iron Works.

New Kansas Skimming Plant

McPHERSON, Kans., Sept. 3.—The Russell Refining Co. is planning to begin immediate construction of a 1,000-bbl. skimming plant to be located 4 miles west of Russell, Kans. The refinery equipment is to be shipped to Russell from Chanute, where a small plant was purchased and is being dismantled. It is planned to have the plant in operation by the end of September. Mr. W. F. Mitchell will be superintendent of the refinery.

A state charter was granted to Robert Sohlberg, McPherson; W. F. Mitchell, Dallas, Tex.; Max H. Farmer, Dallas, Tex.; Charles Lischesky and Senator Coe Russell of Great Bend. The plant has been incorporated for $25,000.

Builds Skimming Plant

OLNEY, Tex., Sept. 14.—Anarene Oil & Refining Co. has a 500-bbl. skimming plant under construction near here, which will be under operation about October 1. The plant will use local crude. Ralph McQuigg is president and C. H. Petty is superintendent of the company.

Petromex to Enlarge Plant

MEXICO CITY, Mexico, Sept. 14.—Plans for increasing the refinery's daily capacity to 4,500 bbls. have been announced by Petromex's board of directors and this work is to start soon. The capacity of the refinery it operates at Tampico was 500 bbls. daily in January, but improvements since then have brought the plant up to its present capacity of 1,800 bbls.

Grogan Reconstructs Plant

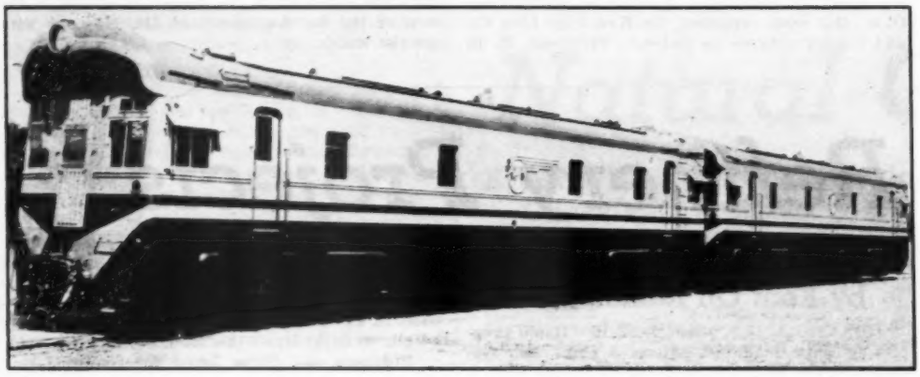
SHREVEPORT, La., Sept. 14.—Reconstruction work has begun on the Crystal oil refinery recently acquired by the Grogan Oil Co. A topping plant being added as part of the work will cost in the neighborhood of $50,000. Other work will be completed in the next 30 days. The plant will have a daily capacity of 5,000 bbls. and between 50 and 60 men will be employed.

Racks of pipe unloaded on the wharf at Port Isabel, Tex., to be used in laying an 88-mile crude line from Samfordyce Field, Southwest Texas

World's Most Powerful Diesel Engine May Haul Journal's Special Train

The Oil and Gas Journal's special train to the annual convention of the American Petroleum Institute in Los Angeles, Nov. 11-14, may be hauled by the most powerful Diesel locomotive in the world. The Santa Fe Railroad, which will operate the special as a section of The Chief, has taken delivery from the Electro-Motive Corp. of the giant locomotive and the management of the railroad has under consideration placing this oil burning monster on the special train which will take the oil men and their wives to the convention of the petroleum industry. Tests of the Diesel locomotive are now being made with the purpose of having it haul The Chief on a faster runs, with every kind of load, and under conditions far harder than any it is apt to face in regular operation. Initial cost of the twin-unit giant is said to have been $360,000.

Reservations for The Oil and Gas Journal special are piling up in offices of the Santa Fe Railroad from New York west. Cars from the Twentieth Century Limited out of New York will be made part of the special over the Santa Fe at Chicago. These cars leave New York at 4 p.m. November 7 and the special leaves Chicago at 12:30 p.m. November 8. Cars on the train leaving Fort Worth, Texas, at 4:20 p.m. November 8 will become part of the special at Newton, Kansas,



New Diesel locomotive obtained by the Santa Fe Railroad Company to haul The Chief

schedule than at present between Chicago and California.

With a conservatively rated 3,600 horsepower, a weight of 240 tons and approximately over-all length of 127 feet the Santa Fe's new power house on wheels overshadows any previous application of Diesel power to light streamlined trains, to rail cars or to relatively light switching engines. It marks the longest step yet taken in exploring the possibilities of applying the flexible and economical power of Diesels to any kind of train on main line service.

The running time of Santa Fe's transcontinental flier, The Chief, which for years has made the long race of 2,225 miles between Chicago and Los Angeles in several hours less time than any other train, has steadily been cut down from the 61 hours of 1926, to the existing schedule of but 35 hours and 45 minutes. It is said that still further reduction is possible with existing steam locomotives, without sacrificing either the roominess or smooth-riding qualities of standard size and weight passenger cars, and that should the Diesel prove capable of improving materially on steam locomotive schedules, it will rather be because of its greater adaptability to track conditions and elimination of fuel stops and engine changes, than because of greater horsepower or engine speed. As a matter of fact, the maximum safe speed of the new engine has been set at 98 miles per hour, a figure frequently equalled or exceeded by steam locomotives, for short distances. The Diesel's advantage will be in its low center of gravity and rotating type of motive force, permitting much higher speeds over curves, bridges and other operating checks than has been possible with the steam locomotive; its faster acceleration, due to the inherent characteristics of its electrical transmission; its ability to travel longer distances without servicing, reducing to a minimum the present stops for water, fuel, locomotive attention and engine changes. The forthcoming tests will be watched carefully for indication of just what time-saving can be effected in this field.

Santa Fe officials decline to forecast what their new locomotive can do. They prefer to leave the answer to a series of gruelling tests, starting immediately, that will put the big fellow through its paces on valley, plains, mountain and desert while cars leaving Tulsa at 12:30 p.m. November 8 and points between there and Kansas City will become part of the special at Kansas City. Inquiries regarding reservations are being received from all sections of Texas, even as far southwest as San Antonio, as many oil men there, learning the fare to Los Angeles is the same over any route, are desirous of going on this special to travel with friends and acquaintances from other sections of the country.

Dozen Oxford, Kansas, Wells Have 117,107-Bbl. Rating

The deep pay horizon in the Oxford Pool in Sumner County, Kansas, had an estimated potential production of 117,107 bbls. in 24 hours from 12 wells on Tuesday morning, September 17. The potential ratings, some of them estimated, were as follows:

	Bbls. daily
Shell Petroleum Corp.'s No. 2 Scroggins	1,288
Shell Petroleum Corp.'s No. 3 Scroggins	2,517
Shell Petroleum Corp.'s No. 1 Buffington	1,800
Shell Petroleum Corp.'s No. 1-A Rothwell	12,177
Shell Petroleum Corp.'s No. 3-A Rothwell	5,600
Amerada Petroleum Corp. and Sunray Oil Co.'s No. 1-A Gassaway	37,466
Amerada-Sunray No. 6 Gassaway	13,638
Amerada-Sunray No. 10 Gassaway	6,870
Amerada-Sunray No. 9 Gassaway	5,820
Barnsdall Oil Co. & Lario Oil & Gas Co.'s No. 2-A Wenrich	21,799
Barnsdall-Lario No. 4 Wenrich	136
Barnsdall-Lario No. 3-A Wenrich	7,996
Total 12 wells	117,107
Average per well	9,759

The Kansas State Corporation Commission revised its allowable schedule to take care of this unexpected production situation and lowered the allowable from 6.77 per cent to 4 per cent of potential making it retroactive to September 1.

Thus the deep sand wells above mentioned would be permitted under the rule to produce only 4,684.28 bbls. per day.

There are three pipe lines running into the field. Continental Pipe Line Co. has an 8-inch line; Shell Pipe Line Corp. a 6-inch and Barnsdall Pipe Line Co. a 4-inch line. These companies have been serving the field for years, taking the oil from the upper sands which at one time were very prolific of oil. These three lines are capable of handling all the oil the Commission will allow to be produced.

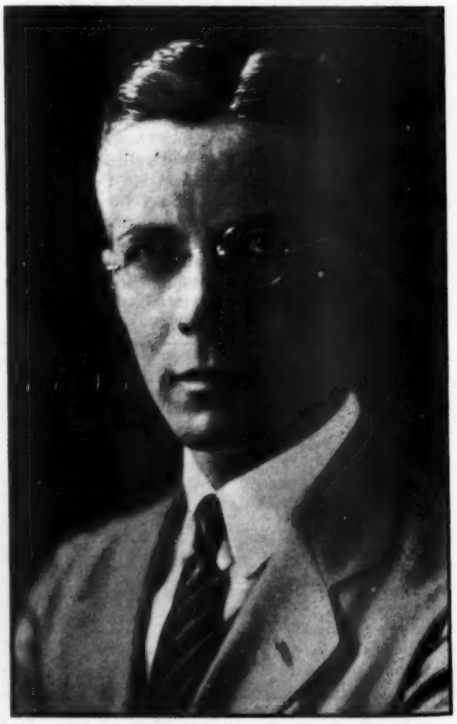
All the deep sand production thus far is confined to wells in Sections 14 and 23 in Township 32-2e.

OBITUARY

FRITZ HOVING, well known pipe representative throughout oil fields of the country for the past 15 years, died in the Sewickley Valley Hospital, Sewickley, Pa., recently. Mr. Hoving was born in Stockholm, Sweden, and acquired his engineering training in that country. For the past three years he had represented Babcock & Wilcox Tube Co. in California.

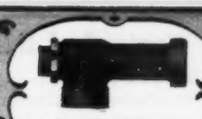
R. J. McMURREY, East Texas oil man, died Friday, September 13, in a Shreveport, La., hospital following an operation. Mr. McMurrey was widely known as one of the plaintiffs in the Panama Refining Co. case attacking federal oil regulation in the East Texas Field. He was born in Lovelady, Tex., and began as a bank teller. He moved to Eldorado, Ark., and became an oil operator there. Shortly after the East Texas Field was discovered he went to Tyler. He operated refineries there and at Arp and was president of Tyler Pipe Line Co. and McMurrey Refining Co.

WILLIAM D. HUME, general auditor of the Skelly Oil Co., died in a Tulsa hospital Monday afternoon shorly after he was found in his office with a bullet wound through the head. An investigation indicated the wound to have been self-inflicted. Mr. Hume had been in ill health for several months. He had been employed by the Skelly company for 13 years, being made acting auditor in November, 1932, and general auditor in October, 1933. Mr. Hume was especially highly regarded by his associates and other officials in the company and by the oil fraternity in general. He worried about the effect his illness might have on his work but was loathe to divide the responsibility of his position. He is survived by the widow and three children.



WILLIAM D. HUME

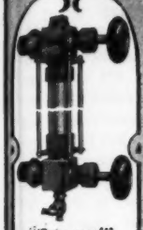
PENBERTHY PRODUCTS

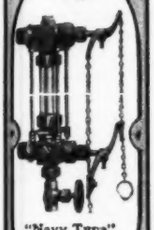

Hydraulic Ejector

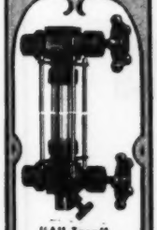
Steam Ejector

"SAFEGUARD"

LIQUID LEVEL GAGE


"Safeguard" Automatic Liquid Level Gage


"Navy Type" Liquid Level Gage


"All-Iron" Automatic Liquid Level Gage

Automatic Cellar Drainer (Water or Steam Operated)

Automatic Injector

Gas Engine Lubricator

Snap Lever Oiler

Automatic Electric Sump Pump

ALL ★ THAT THE NAME IMPLIES

SAFETY is a primary consideration in the selection of equipment for the oil industry—that is an important reason for the popularity of the Penberthy "Safeguard" Liquid Level Gage. It is ruggedly constructed of high grade steam metal bronze and is recommended for working pressures up to 300 pounds.

Operation of the Penberthy "Safeguard" Liquid Level Gage is automatic and dependable. When the glass is broken loss of liquid is prevented by the immediate and positive closing of ball check valves in both upper and lower bodies. The stop valves may then be safely closed and a new glass inserted.

"Safeguard" and the other types of Penberthy Liquid Level Gages are carried in stock by supply houses everywhere.

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BECAUSE many of our officers and directors grew up in the oil industry, they know that oil loans need a different sort of handling from other loans and that expert advice must be had on every application.

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NATIONAL BANK OF TULSA

TULSA OKLA

A.P.I. Appoints Committees for Survey of Oil Industry

NEW YORK, Sept. 17.—The American Petroleum Institute today announced appointment of four committees delegated to study problems peculiar to the production, refining, marketing and transportation branches of the oil industry. It is hoped the committees will be able to complete their work and make final reports to the institute board of directors at the annual meeting in November at Los Angeles. The aim is to work out a general program in regard to legislation and other matters which will receive the support of the industry generally.

Chairmen of the committees which will hold their first meetings this week follow: Production, J. Edgar Pew, Sun Oil Co.; refining, J. Noel Robinson, Tide Water Oil Co.; marketing, W. V. Hartmann, Gulf Refining Co.; transportation, Harry T. Klein, Texas Co.

DALLAS, Tex., Sept. 17.—The production inquiry committee of the American Petroleum Institute will meet here tomorrow. The chairman, J. Edgar Pew, vice president of the Sun Oil Co., and a former president of the A.P.I., arrived here tonight by plane.

The production inquiry committee includes A. I. Levorsen of Tulsa, president of the American Association of Petroleum Geologists, and the following past presidents of the A.A.P.G.: Dr. F. H. Lahee of the Sun Oil Co., Dallas; W. B. Heroy, New York; F. R. Clark, Tulsa; Wallace Pratt, Houston; J. Y. Snyder, Shreveport; G. C. Gester, San Francisco; Alex McCoy, Ponca City, Okla.; E. De Golyer, Houston; James H. Gardner, Tulsa, and Russell S. McFarland, Dallas.

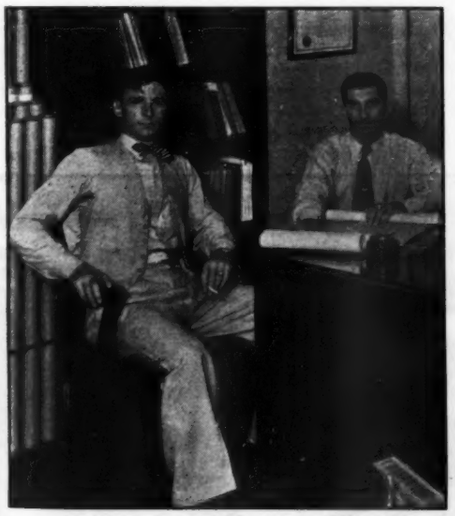
Charles Fahy Leaves P.A.B.

WASHINGTON, D. C., Sept. 16.—Charles Fahy, chairman of the Petroleum Administrative Board, has resigned to take the position of general counsel to the National Labor Relations Board set up under the Wagner-Connery Labor Disputes Bill to adjudicate labor difficulties.

Other resignations from the Petroleum Administrative Board are being predicted. The members still on the board are E. B. Swanson, Dr. John Frey, and Norman L. Meyers whose time has been mainly taken up with the duties of chairman of the Federal Tender Board in East Texas.

Osage Sale, September 24

The next sale of leases in Osage County, Oklahoma, will be held on Tuesday, September 24, at Pawhuska. Among the quarter sections to be auctioned are properties in the neighborhood of production in the South Burbank and Naval Reserve areas which are expected to cause active bidding and to bring relatively high prices.



Glenn H. McCarthy (left) and M. T. Halbouty

Glenn H. McCarthy, Inc., independent operator, and drilling contractor, Houston, Tex., who was interested in the sale of a portion of the Mason and McCarthy acreage in the Anahuac Field, Chambers County, Tex., to Humble Oil & Refining Co., has established a geological, paleontological and petroleum engineering department under the supervision of M. T. Halbouty, formerly chief geologist and petroleum engineer with Yount Lee Oil Co. The firm has installed modern facilities for doing its own geochemical, paleontological, bottom hole pressure, gas-oil ratio work; sand porosity and permeability, and oil and water saturation determinations; analyses on drilling muds, or anything connected with geology and petroleum engineering. So far as known this is the first firm of its kind to provide such facilities and services.

Natural Gasoline Production in July Continued to Show an Increase

The increase in the production of natural gasoline, which began in June after a steady decline for several months, continued in July, 1935, according to a report prepared by the Bureau of Mines, Department of the Interior. The daily average output in July was 4,243,000 gallons, compared with an average of 4,212,000 gallons in June. Daily average production in the Panhandle remained virtually unchanged but Kettleman Hills and Oklahoma City both registered increases. Production in the East Texas Field continued its upward trend. Stocks of natural gasoline at plants and terminals increased but stocks at refineries declined; the net change was a decrease in the total stocks from 245,741,000 gallons on June 30 to 244,279,000 gallons on July 31.

Exports of natural gasoline continued to increase in July but "direct" shipments to jobbers, retailers, and refinery-owned bulk plants declined from 10,759,000 gallons in June to 8,601,000 gallons in July. Exports totaled 19,157,000 gallons.

As a result of seasonal influences the trend in average vapor pressures continued downward. The average vapor pressure of refinery consignments increased from 19 pounds in June to 19.1 pounds in July but that of other classes of deliveries was nearly 2 pounds lower.

PRODUCTION AND STOCKS OF NATURAL GASOLINE

(Thousands of gallons)

	Production				Stocks			
					July 31, 1935		June 30, 1935	
	July, 1935	June, 1935	Jan.-July, 1935	Jan.-July, 1934	At refineries	At plants and terminals	At refineries	At plants and terminals
East Coast	.....	.....	.....	.....	11,970	.....	9,954	.....
Appalachian	3,649	3,896	36,923	34,400	126	4,038	210	4,859
Illinois, Michigan and Kentucky	645	697	5,562	4,900	1,680	270	1,302	282
Oklahoma	30,759	29,739	209,242	206,100	2,394	28,996	2,856	25,611
Oklahoma City	9,212	8,521	62,771	59,300	(*)	6,585	(*)	5,360
Osage County	3,946	3,727	26,731	25,400	(*)	9,303	(*)	8,320
Seminole	8,514	8,390	55,223	57,000	(*)	5,796	(*)	5,436
Rest of State	9,087	9,101	64,517	64,400	(*)	7,312	(*)	6,495
Kansas	2,344	2,414	18,093	15,700	126	1,706	168	1,810
Texas	43,637	41,795	294,458	253,900	6,594	82,283	10,710	70,972
Gulf	2,134	2,101	15,445	(†)	6,384	25,060	10,458	19,273
East Texas	7,515	6,801	40,008	22,100	(*)	508	(*)	692
Panhandle	23,088	22,258	163,969	136,000	(*)	50,742	(*)	44,953
North Texas	1,936	1,880	14,082	14,900	(*)	1,359	(*)	1,312
West Central	6,336	6,258	44,139	47,000	(*)	3,861	(*)	3,990
Rest of State	2,628	2,497	16,815	33,900	(*)	753	(*)	752
Louisiana	3,776	3,664	26,079	22,900	252	4,967	84	6,914
Arkansas	1,260	1,138	7,806	7,700	168	221	84	171
Rocky Mountain	4,353	4,158	30,031	33,000	2,898	1,495	2,058	1,411
California	41,134	38,848	285,008	288,900	90,930	3,225	103,026	3,259
Huntington Beach	3,470	3,360	22,174	24,000	(*)	(*)	(*)	(*)
Kettleman Hills	9,489	8,650	61,645	82,000	(*)	(*)	(*)	(*)
Long Beach	7,223	6,724	45,772	44,900	(*)	(*)	(*)	(*)
Santa Fe Springs	4,519	4,268	31,667	38,700	(*)	(*)	(*)	(*)
Ventura Avenue	3,355	3,675	24,987	26,200	(*)	(*)	(*)	(*)
Rest of State	13,068	12,271	78,763	73,100	(*)	(*)	(*)	(*)
Total	131,547	126,349	913,202	867,500	117,138	127,141	130,462	115,289
Daily average	4,243	4,212	4,308	4,090	.....	.....	.....	.....
Total (thousands of barrels)	3,132	3,008	21,742	20,655	2,789	3,027	3,106	2,745
Daily average	101	100	103	97	.....	.....	.....	.....

*Not available. †Included under "Rest of State."

RECEIPTS AND DELIVERIES OF NATURAL GASOLINE, JULY, 1935

(Thousands of gallons)

	Deliveries				Receipts		
		To refinery-owned bulk plants	To jobbers and retailers	Exports	At refineries	At refinery-owned bulk plants	By jobbers and retailers
East Coast	.....	.....	.....	.....	1,283	25	274
Appalachian	2,078	384	1,480	332	1,096	384	703
Indiana, Illinois, Kentucky, etc.	391	.....	265	.....	10,898	223	2,065
Oklahoma	25,651	298	1,822	121	16,443	43	718
Kansas, Missouri, etc.	2,312	73	51	.....	3,340	220	552
Texas Inland	20,825	247	1,719	168			
Texas Gulf	1,769	.....	.....	*7,822	16,325	100	1,052
Louisiana and Arkansas	3,645	.....	906	3,764	3,036	.....	881
Rocky Mountain	3,510	15	88	.....	2,760	22	96
California	32,839	.....	1,242	6,950	32,839	.....	1,243
Total	93,020	1,017	7,584	19,157	93,020	1,017	7,584
Daily average	3,001	33	245	618	3,001	33	245
Total (thousands of barrels)	2,215	24	181	456	2,215	24	181
Average V.P.	19.1	10.2	14.2	16.7	19.1	10.2	14.2

*Includes exports from refinery stocks.

DETAIL OF SHIPMENTS TO JOBBERS, RETAILERS, AND REFINERY-OWNED BULK PLANTS, JULY, 1935

(Thousands of gallons)

	Point of receipt							
Point of delivery—	Texas	W. Va.	Wis.	Okla.	Ala.	Minn.	Others	Total
Oklahoma	32	.....	474	490	.....	317	817	2,130
Texas	1,100	.....	169	4	.....	180	513	1,966
West Virginia	.....	710	.....	.....	.....	.....	507	1,217
Arkansas	.....	.....	.....	.....	481	.....	18	499
Louisiana	20	.....	.....	57	60	.....	270	407
Ohio	.....	.....	.....	.....	.....	.....	404	404
Others	.....	11	.....	.....	.....	35	1,932	1,978
Total	1,152	721	643	551	541	532	4,461	8,601

Oil News from Foreign Lands

VENEZUELA

Crude oil production in Venezuela in August with an average of 414,700 bbls. daily was only 20,000 bbls. greater than in the same month last year, a gain of approximately 5 per cent. The increase in production this year over last has gradually been narrowed from month to month and unless there is an expansion in the operations the monthly totals at the close of the year will be practically the same for 1935 and 1934. Crude oil production in Venezuela in 1934 and 1933 was showing a steady increase but this year the monthly totals have fluctuated with operating conditions but no definite upturn in permanent production is apparent.

The production in Venezuela for August by fields and companies was as follows (data in barrels):

BY FIELDS

	1935	1934
Lagunillas	7,088,776	6,429,800
Quiriquire	1,979,154	1,289,300
La Rose-Ambrosia	1,902,455	2,135,200
Mene Grande	1,301,800	1,337,600
Tarra	422,000	501,000
Cumarebo	261,060	298,500
Concepcion	122,800	139,200
El Mene	69,400	79,800
La Paz	12,510	22,700
Total	12,860,955	12,233,200

BY COMPANIES

	1935	1934
Lago Petroleum Corp.	3,919,716	4,114,900
Venezuelana Oil Concessions, Ltd.	3,253,010	2,257,000
Creole Petroleum Corp.	2,429,029	1,795,800
Venezuelan Gulf Oil Co.	1,465,000	1,147,000
Caribbean Petroleum Co., Ltd.	1,301,800	1,337,700
Colon Oil Corp.	422,000	501,000
British Controlled Oil Fields, Ltd.	69,400	79,800
Total	12,860,955	12,233,200

DAILY AVERAGES

	1935	1934
August	414,700	394,620
July	415,582	386,342
June	424,411	373,435
May	401,742	372,232
April	382,378	367,233
March	371,900	351,636
February	390,020	348,900
January	405,156	350,276
First six months	397,055	360,780

The most important development of the month in Venezuela was the bringing in of No. 1 Anacuro by the Standard Oil Co. of Venezuela (Creole) in the Pedernales area of eastern Venezuela close to Gulf of Paria. The well at a depth of 5,100 feet is flowing 700 to 800 bbls. daily of 21 gravity crude.

This area first looked promising in the fall of 1933 when a wildcat test was completed and started flowing. Later the well sanded over and operators were never able to increase the production over 100 bbls. daily. Four other tests were drilled in that section without success. The new completion now makes that area look promising again. It is understood that the operators expect to let the test flow 30 days or more in order to secure a better idea as to the staying qualities of the production. If this test proves satisfactory other wells will be drilled in the expectation that a permanent field will be developed. This will be the second commercial field in eastern Venezuela. The other field which is also operated by the Standard of Venezuela is known as the Quiriquire and is now producing from 50,000 to 60,000 bbls. daily.

The same company is expected to start drilling this month on the "El Lirial" tract in the State of Monagas in eastern Venezuela. This test is located on a concession of the Pantepec interests which recently signed a contract with the Standard company covering development work on its concessions in eastern Venezuela. It is also reported that the Venezuelan Gulf Oil Co. will resume operations in the Oficina area of the State of Anzoategui within the next 30 days.

The Lake Maracaibo area is maintaining its production as shown in the foregoing table with Lagunillas near an all-time peak. No tests of special importance in that section were reported during the month. Drilling is largely confined to proven areas with a large amount of work going on in equipping wells for pumping and the application gas lift and repressuring in producing areas.

BELGIUM

The new refinery of the Redeventza Societe Anon. Belge, located at Antwerp, Belgium, has started operating following a delay of several months. The construction of the plant was completed early this year but inability to secure a satisfactory crude supply has delayed the starting of operations. The plant has a rated crude oil capacity of 2,500 bbls. daily.

The refinery equipment includes a pipe still and a large tower for distillation and fractionation under atmospheric conditions. The products obtained will be gasoline, kerosene, distillate and fuel oil. The plant is designed so that special naphthas cut can be obtained if desired.

The refinery was built as a result of a new law in Belgium which favors imported crude for domestic refining in the matter of duties and taxes, compared with the importation of finished products. Distribution of the products will be handled by the "Redeventza" organization.

POLAND

A marked decrease in the activities of foreign oil companies has taken place in recent months, according to information from Poland. It is expected in oil circles in that country that the Vacuum Oil Co. will substantially reduce the throughput of its refinery plant at Czechowice, Polish Silesia. These limitations are due to high prices of $25.70 per metric ton or $3.90 per barrel for crude petroleum, which seriously handicaps those refiners who do not have their crude oil production.

The Pioneer Oil Co., formed some years ago, continues to investigate by geological and geophysical methods territories on the fringe of the Carpathian Mountains. No commercial production has been obtained.

The State Refinery has been more successful in locating a well by which a new and promising gas field in the western Carpathian district has been discovered. The gas pressure in this well amounts to about 1,800 pounds per square inch. A new refining system, suitable for production of heavy lubricating oils, is to be adopted by the State Refinery. The main feature of this new method is that topped crude petroleum is deasphaltized with propane.

BAHREIN ISLAND

European reports that subsidiaries of the Standard of New Jersey, Anglo-Iranian and Shell, acting either collectively or separately, have closed a contract providing for the purchase of crude oil from the Bahrein Island concession of the Standard Oil Co. of California are not confirmed by principals in the United States. Since the discovery of oil in 1931 the Standard of California has been carrying on additional drilling, building transportation facilities and making other preparations for a large scale permanent operation of the concession. The actual production has been restricted because the company does not have refining and marketing facilities in that part of the world. The daily average production so far this year has been less than 3,000 bbls. daily although the actual output available from several completed wells is several times that quantity.

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the OIL AND GAS JOURNAL

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Example Offered for the Compact

The oil industry will watch with a great deal of interest the meeting called by the Railroad Commission of Texas at Marshall, Harrison County, for Friday, September 27, to which the Texans have invited representatives of the Louisiana Conservation Commission and the Arkansas Railroad Commission, the oil regulatory bodies of those states.

This invitation, if accepted, should result in a long step forward in interstate consultation on oil problems.

The immediate subject of discussion is a truly mutual problem since each state fears the effects of the other's attitude on its own position as a producing state.

East Texas operators, restricted to an allowable of 150 barrels daily, are already alarmed at the possibilities in the new Rodessa field in Louisiana as operators in that state may produce 1,750 barrels daily, per well.

Louisiana operators, handicapped by a gross production tax ranging from 7 to 11 cents a barrel, contrast their position with the three per cent tax across the bonndary.

The possibility that the Rodessa field may extend into southwest Arkansas and northeast Texas gives the proposed tri-state conference an immediate and practical bearing for all three.

This proposal for joint conference, entirely outside the Interstate Oil Compact, which neither Louisiana nor Arkansas has ratified, is a concrete example of what that compact might do.

The reaction of production in one state upon conditions in other states is clearly presented in this case. The necessity and wisdom of getting together to avoid general injury is recognized.

Excessive taxation, though designed to provide revenue for a state, can prove a boomerang by putting the state at a disadvantage compared to other oil producing states.

Excessive production, though claimed as a state and individual right, is seen for what it is when another state's potential overproduction becomes a threatening factor.

The recognition of this hard common sense fact in the proposal for the conference at Marshall next week, if accepted, (which it should be because of its necessity and mutual advantage,) would set a fine example for the interstate compact.

There are lots of practical interstate problems like this crying for attention. Going directly after them as this proposal suggests will accomplish results when they are needed.

If the interstate compact is to justify itself and disappoint its critics it must show a similar directness in tackling its job.

A satisfactory outcome of the proposed tri-state conference at Marshall might induce Arkansas and Louisiana to try the broader experiment of entering the interstate agreement.

Which Rules Are Preferred?

The annual meeting of the National Petroleum Association at Atlantic City this week will be of special importance because of the scheduled discussion on Friday of the proposed voluntary code of fair trade practices for the oil industry and the presentation by a representative of the Federal Trade Commission of a paper on "The Commission and Its Methods of Preventing Unfair Competition."

A draft of the code was published in The Oil and Gas Journal of August 8, 1935 to be presented to the industry for consideration at a series of regional meetings with a view to full discussion and revision before final submission to the Federal Trade Commission. Chairman C. E. Arnott and members of his committee will explain the code to the National Petroleum Association.

Fayette B. Dow, general counsel of the association, sums it up concisely: "Some may think the rules do not amount to much but they are the beginnings of a movement that may save the oil industry from a Guffey bill some day."

It may be a question of obeying the rules the industry makes or being compelled to obey rules made outside the industry.

Oil Industry Was Fortunate

Commenting on the assumption "that government could place check-reins upon business that would keep it on the track" Ernest T. Weir, steel manufacturer, told the National Industrial Advertisers Association at Pittsburgh this week that government could do this only if three things were true:

"First, it would need a personnel with an economic intelligence superior to the combined intelligences of business men throughout the country. Second, these officials would have to be motivated by considerations in which personal, social and political influences played no part. Third, government power could not be confined to the economic field, but would have to be extended to every other field and over every individual in the country."

The oil industry has recently had an experience which confirms Mr. Weir's conclusions. The industry was fortunate in seeing where it was heading before it got too far.

KELLOGG COMBINATION CRACKING UNITS SOLVE MANY PROBLEMS FOR REFINERS

One recently completed Kellogg combination topping and cracking unit distills straight run gasoline and kerosene from the crude, cracks all the rest of the crude to gasoline and fuel, treats the gasoline and finally stabilizes it to produce a high grade product which has the highest volatility consistent with the season of the year in which it is consumed.

Work has now started on still another Kellogg combination unit which will accomplish these various steps within the confines of a single unit.

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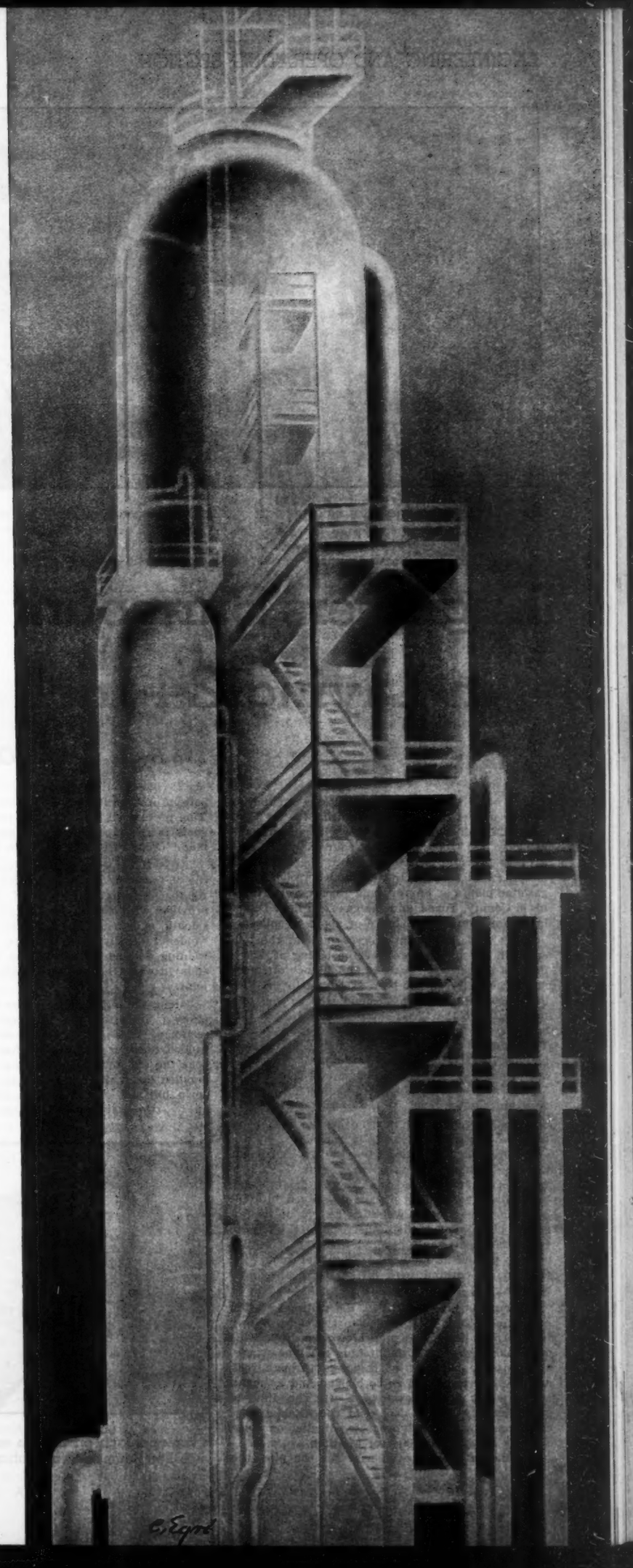


Lowering 24-inch line into ditch as part of 22-mile extension of Phillips Petroleum Co.'s gas pipe line system in the Panhandle of Texas

Engineers Surmount Natural Obstacles in Laying 24-Inch Texas Gas Line

By L. G. E. BIGNELL

To meet conditions created by the recently enacted gas conservation law in Texas a new 24-inch diameter gas line with an estimated capacity of 150,000,000 feet of sour gas daily at an average pressure of 200 pounds at the intake end is being laid between the Phillips Petroleum Co.'s gasoline plants at Sanford and Rock Creek, Hutchinson County, Texas, and the gas field near Dumas in Moore County, a distance of about 22 miles.

This work is now in progress and at the field end will be supplemented by the laying of 6 or 7 miles of gathering lines, 8, 12 and 16-inch diameter. After the sour gas has been processed in the Phillips gasoline plants the residue will be delivered principally to the three plants of the United Carbon Co. also near Sanford in Hutchinson County. Two of these plants with a combined capacity to handle 76,000,000 feet of gas daily are now in operation and a third plant with a capacity of 50,000,000 feet daily is being completed near the first unit at Sanford.

This project is of major importance and all details have been very carefully considered by the engineering department of the Phillips Petroleum Co. The 24-inch pipe is of the spiral electrically welded type and shipped from the factory in exactly 40-foot lengths. The pipe is assembled into the pipe line by electric welding. Except in a few known "hot spots" where corrosion is likely to occur the pipe is only covered with the protective coating put on at factory. At the "hot spots" the the pipe is covered with bitumastic coating and wrapped.

When this pipe arrives at the railroad station at Stinnett, Tex., it is hauled to the right of way for the pipe line and strung along the ditch. This ditch has been dug with ditching machine wherever possible but part of it passes through rock and these sections had to be blasted and as many as 300 shots per day were set off. The ditch is approximately 4 feet deep and the ditching machine made very good progress, digging on some days as much as 10,000 feet of ditch.

To insure a level, even base for the pipe, the bottom of the ditch was completed by hand work. This precaution was taken to prevent high or low spots in the pipe where drip gasoline or moisture might occur after the line is in operation.

After the pipe was strung along the right of way the 40-foot sections were welded together to form 200-foot lengths. Each end of the spiral pipe is provided with a plain smooth terminal piece. These smooth ends rest upon rollers and permits the welder to easily turn the pipe while electrically welding it. The thicker section of metal in these ends provides means for making a good welded joint.

Along the hillsides above the river the pipe line takes a sharp dip and to permit handling of the sections there only three 40-foot joints are welded together forming 120-foot lengths. To prevent the end of this pipe being damaged as it is handled down the hill bull plug is fitted into the down hill end of the section. The pipe is picked up by two tractors and a truck equipped with cranes and winches and the lower end slides on its nose protected by the bull plug. When the section is at the proper place opposite the ditch it is lowered onto heavy timbers across the ditch for welding into the line.

River approach on 24-inch gas line of Phillips Petroleum Co. in Panhandle of Texas

The 120-foot sections are assembled only for the hillside locations of the ditch, on the straightaway and on the bridge over the river the pipe is handled in 200-foot lengths. These long sections of pipe are handled by two tractors equipped with cranes and winches.

When the pipe is lowered into the ditch it is desirable it be in compression rather than tension. The pipe is therefore raised upon trestles made by crossing two heavy timbers and as the pipe between these cross supports is lowered into the ditch the line assumes an undulating condition with the high points about 800 feet apart corresponding to the positions of the higher cross trestles.

The next operation is to lift the pipe off of the cross trestles and lower it into the ditch where it settles to the bottom by its own weight but in doing so takes up all slack in the line and actually is in compression when resting on the bottom of the ditch.

It is necessary to lay this line with the pipe in compression because the soil and gas temperatures are such as to cause the pipe to expand and lengthen when in use. To illustrate the difference temperature will make one 18-mile order of this kind of pipe shipped from the factory in cold weather actually measured 18 miles and 296 feet when unloaded and checked in the Panhandle.

It is proposed to test the line when ready for operation by starting the gas through it early in the morning when everything is as cool as possible. It will be placed under about 250 pounds pressure and then allowed to stand for 24 hours and pressures again checked to determine the tightness of the line.

This line will cross the Canadian River about 8,640 feet north of the gasoline plants, or the southern terminal, upon a trestle made of 65-foot long creosoted piles driven by steam pile drivers

through the upper body of sand in the river and into the bed rock beneath. These piles are in groups of seven arranged in a pattern like this:

```
O         O
O    ( O  ) O
O         O
```

These bents are placed at intervals of 80 feet across the stream and the pipe will be about 20 feet above normal water level of the stream and 10 feet above flood water.

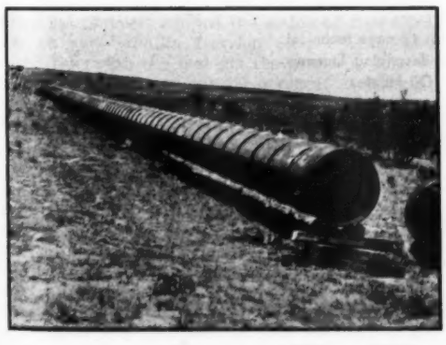
This river crossing is level but slightly higher than the end approaches. The pipe leading to the river crossing descends from higher ground on each side of the river and drips are provided at the low points on each side of the river.

To attach the pipe to the cross members of the bents loops of round iron are made passing over the top of the pipe and downward between the two members and tightened by nuts and spacing washers under the cross pieces. No special provision is made for wind loading because of this form of construction as it is substantial enough to take care of this additional load.

As the line must bend downward where it leaves the high ground on each side of the river it was necessary to provide joints which could be welded into the pipe at these points. For this purpose 45 and 90-degree forged pipe turns were selected and segments cut from them to conform to the angle of the bend. On the south side of the river two 6-degree underbends and one 16-degree overbend were used and on the north side, one 6-degree underbend and one 16-degree overbend and an 8-degree side bend were provided. These joints were all carefully laid out and welded so the pipe would fit snugly into the bottom of the ditch.

When the right of way for this line was studied in detail it was estimated many bends would have to be made using pipe turns and a sufficient supply of forged pipe turns was ordered to meet the anticipated requirements. When the line was actually welded together it was found to be flexible enough to accommodate itself to the contour of the ditch in every direction so the pipe turns were not needed. This flexible feature of the spiral pipe only reduced the cost of the line materially but shortened the time required to assemble and lay the pipe.

As the main portion of this line is relatively straight the work was started from the plants on the south side of the river and the two approaches completed. The bridge across the river was not ready for the line when the approaches were completed but they can be tied in later and work on the main line is being pushed to the north of the river rapidly.



Ready for welding into 200-foot sections

As the pipe is lowered the ditch is backfilled with the regular type caterpillar mounted backfiller, but at places where the bends in the line occur the ditch is filled by hand and the pipe carefully aligned. This is necessary because it would be hard for the backfillers to operate on the steep grades on the edges of the north and south hills above the river and also to anchor the line at these points before general backfilling of the ditch is commenced.

In addition to the main 24-inch line the project requires the use of a considerable quantity of smaller pipe for the gathering system. To secure the sour gas needed from 12 to 14 wells are being drilled near Dumas, Tex., and connected to the main line with several smaller pipe lines.

This gathering system as now planned will consist of about 41,000 feet or 8.3 miles of 16-inch, 33,000 feet or 6.25 miles of 12-inch, 11,000 feet or 2.08 miles of 10-inch and from 6 to 8 miles of 6 and 8-inch pipe all now being laid from wells to the intake end of the 24-inch system.

This gathering system in itself will constitute approximately 25 miles of new pipe all of the same kind as used in the main pipe line and laid in much the same manner with welded connections. The same care has been exercised in laying the laterals as in the main line and the whole system indicates the importance of the project necessitated by the change from sweet to sour gas in the gasoline and carbon black plants.

At last report the work on this line is progressing very satisfactorily and it is expected to be completed early in September in ample time to handle sour gas from the wells after October 1, when the law requires the change from sweet to sour gas because carbon black plants cannot process sweet gas residue after that date.

Construction of the New Valley Pipe Line and Refinery Nearly Complete

By GEORGE WEBER

McALLEN, Tex., Sept. 13.—Despite heavy rains and imminent danger of floods in the Rio Grande Valley of Southwest Texas, the construction of the Valley pipe line and the refinery at Port Isabel has proceeded according to plans. The 88-mile line connecting the Samfordyce Field of Hidalgo and Starr Counties with a deep-water terminal and refinery at Port Isabel is nearing completion with about 25 miles yet to be laid. Clearing crews have finished preparing the right of way into the field and the stringing crews are distributing pipe near the Pharr Road 3 miles west of Hidalgo. The recent flood stage of the Rio Grande River brought on by heavy rainfall to the northwest is already receding with the crest past the section in which the crews are now working. Neither damage to the newly laid line, nor interruption in the laying operations was encountered, although local rains hampered work to some extent.

Unloading the 74-foot fractionation tower for the new Pettus refinery at Mathis, Tex.

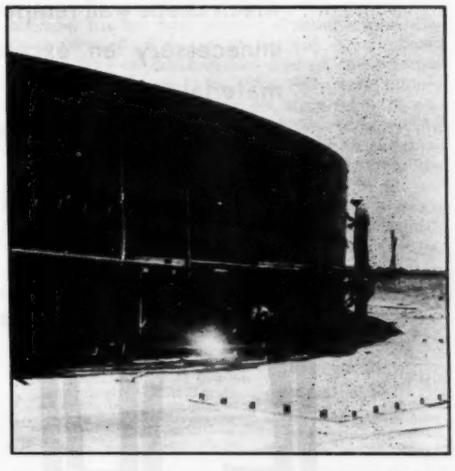
The line is being laid by the Fredell Construction Co., Houston. Republic electric weld pipe in 40-foot random lengths is being furnished, in correction of a previous report, by the Republic Supply Co. A. B. Judd is the Houston representative of the company. Dresser couplings are being used throughout the 5-inch line, the longest yet laid with this type of couplings. Protection of the line is furnished by a coat of asphalt paint to guard against corrosion in the damp soil of the region.

At the Samfordyce end of the line, storage facilities have been completed and the two tanks are connected into the gathering system of the field. The 25,000-bbl. tank is now receiving crude, and the 55,000-bbl. tank is standing full. A Diesel driven pumping unit at this point is installed and ready to charge the crude to the nearly completed line. The unit is designed to move 6,000 bbls. per day the entire distance to Port Isabel. Facilities for a second pumping station are incorporated into the line at the midway point. The second station will be added when increased capacity of the line is desired.

The construction of the refinery at Port Isabel and storage at field and terminal is contracted on a turnkey basis by the Wyatt Metal & Boiler Works. With the completion of the Samfordyce storage, crews of the company have moved to Port Isabel where they are erecting a battery of tanks for the terminal and refinery. One 55,000-bbl. tank is finished and being tested and a second tank of the same size is nearly finished. Welding crews are also working on the remaining tanks which range in size down to 500 bbls. All of the tank steel, steel building material and pipe and fittings are now on the site. The equipment for the refinery is en route to Port Isabel and is expected to arrive shortly.

The 5,000-bbl. refinery is rapidly taking shape. It will consist of modern equipment designed to skim and crack the Samfordyce crude. Laboratory and office buildings are finished and foundations are being poured for stills, towers and pumping units. W. E. Dillman, of the Wyatt Metal & Boiler Works, is in charge of refinery construction, assisted by W. W. Roberts and B. H. Perkinson.

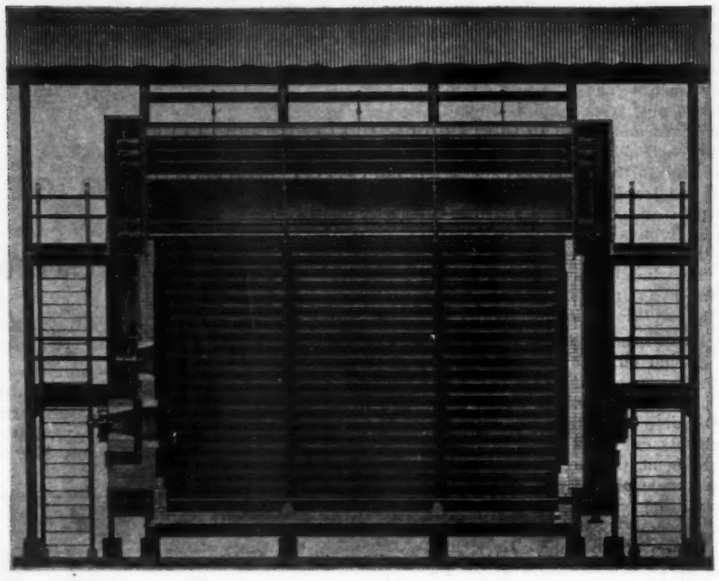
Three companies constitute the project of moving Samfordyce oil to Port Isabel and refining it. The pipe line is owned by the Valley Pipe Line Co. The refinery will operate under the name of the Coastal Refineries, Inc. Terminal facilities are to be handled by the Port Isabel Terminal Co. These companies are controlled by T. Frank Murchison and E. M. Closuit, of the firm of Murchison & Closuit, Inc., Dallas.



Welding the second tier of the 55,000-bbl. tank at Samfordyce on the Gulf Coast

Operation of the pipe line is expected within two weeks. Completion of the refinery is scheduled for November 15. The $750,000 investment in the three companies will furnish Rio Grande Valley production with a needed outlet to deep-water transportation, and suitable modern refining facilities to meet a growing demand.

HEAT LOSSES are unusually low



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PETROLEUM REFINING PLANTS

Separation of Petroleum Hydrocarbons Effected Through Use of Silica Gel

By BEVERIDGE J. MAIR and JOSEPH D. WHITE
Research Associates at the National Bureau of Standards representing the A.P.I.

In an investigation in progress at this bureau on the isolation, identification, and determination of the hydrocarbons in petroleum, a simple method by which the aromatics may be separated completely from the naphthenes and paraffins is needed. The method should preferably be a physical one, and should permit nearly quantitative recovery of unchanged hydrocarbons.

Extraction with liquid sulphur dioxide at low temperatures may be employed to advantage with fractions rich in aromatics, but the complete removal of aromatic hydrocarbons by this solvent is not practical. Two chemical methods, nitration or sulphonation, may also be used for removal of aromatics. With nitration the aromatics cannot easily be regenerated, while with sulphonation the aromatics can usually be recovered by hydrolysis of the sulphonic acids. Both methods involve the use of a strong oxidizing agent for a considerable period of time, and there is consequently danger that any nonaromatic hydrocarbons present may also be attacked. With these methods it is difficult to remove completely the last trace of nitro compounds or sulphonic acids from the unattacked oil.

Use of Adsorbents

The use of adsorbents in petroleum refining for the removal of compounds containing sulphur and oxygen and of hydrocarbons with a low ratio of hydrogen to carbon is well known. Most investigations on the separation by adsorbents of the hydrocarbons in petroleum have been made with such complex mixtures that little definite information is available. Day and coworkers[1] in 1911 found that when a solution of benzene and a paraffin oil is allowed to diffuse upward through a tube packed with fuller's earth, the benzene tends to collect in the lower sections and the paraffin oil in the upper sections of the tube. Tarasov[2] in 1927 reported that all the aromatics could be removed from the naphthenes and paraffins by adsorption if sufficient silica gel was used. More recently, Hofmeier and Meiner[3] studied the action of five silica gels on the naphtha fraction of petroleum and found that with the best gel the aromatic content could be reduced by only 50 per cent. Neither of these investigators found any separation of paraffins and naphthenes. Hofmeier and Meiner did not obtain a satisfactory recovery of oil.

In this paper are presented the results of experiments on the adsorption by silica gel of binary mixtures of hydrocarbons of different types and molecular weights. In particular, a simple method is described which should find extensive use in removing aromatic hydrocarbons from petroleum distillates. This method is considered superior to nitration or sulphonation in simplicity, completeness of removal of aromatics, and total recovery of oil. It is superior to extraction with sulphur dioxide in simplicity and completeness of removal. The method is scarcely practical for mixtures containing more than 15 per cent of aromatics because of the small volume of aromatic-free oil recovered from such concentrated mixtures. In this case a preliminary extraction with sulphur dioxide is recommended.

The apparatus is very simple, consisting of glass tubes mounted vertically and filled with silica gel. One of these tubes is shown in Figure 1. At the top is sealed a glass bulb as a reservoir for the hydrocarbon mixture. To the top of this reservoir may be attached a rubber tube through which air pressure can be applied during filtration. At the bottom of the adsorption tube is sealed a smaller tube which extends into a stoppered graduated cylinder. A small plug of glass cotton at the bottom of the adsorption tube suffices to hold the silica gel in place. The adsorption tubes used in these experiments were 40 cm long and had an inside diameter of 1.5 to 1.7 cm.

Two grades of silica gel obtained from the Silica Gel Corp., Baltimore, Md., were used. These were grade "150-F-850" (40 to 200-mesh) and "Intermediate" (200-mesh and finer). These grades will be referred to throughout the rest of this paper as coarse and fine, respectively. The gel, after use and after displacement of the oil with water, was reactivated by transferring it while wet to a Pyrex-glass tube, sucking it as dry as possible and placing it in an oven, where it was heated for 24 hours at a temperature of 300 to 350° C., while air was aspirated through it. Both the original gel and the reactivated gel were stored in moisture-proof containers.

In this article the authors discuss fractionation by filtration through columns of silica gel, of a number of binary mixtures of pure hydrocarbons boiling between 80 and 175° C. Two important results of these experiments show that (a) the aromatic and olefin hydrocarbons may be removed from the paraffin and naphthene hydrocarbons; (b) the capacity of the silica gel as an adsorbent was found to depend on the concentration of the solution and to some extent on the components of the solution from which the aromatic hydrocarbon is being adsorbed.

Pure Hydrocarbons

All the hydrocarbons used in this work, except those mentioned below, were isolated from petroleum, or prepared synthetically or purified in this laboratory. The samples were not of the highest purity, but they were sufficiently pure for the purpose of these experiments. Their refractive indices differed by only a few units in the fourth decimal place from those of the best material prepared by us. The n-heptane of Jeffrey pine origin and the 2,2,4-trimethylpentane were commercial materials of high purity. The n-tetradecane was an Eastman product. Its treatment before use is described in a later section of this paper. The diamylene was a mixture of 3,5,5-trimethylheptane-2 and 3,4,5,5-tetramethylhexane-2. This sample was obtained through the courtesy of W. L. Drake,[4] who has described the analysis of the mixture.

These experiments were designed principally to show the degree of separation obtained when an aromatic hydrocarbon mixed with a naphthene or a paraffin hydrocarbon is filtered through silica gel. A series of binary mixtures with boiling points from about 80 to 175° C. was used. To eliminate fractionation by evaporation, each binary mixture was made from hydrocarbons with approximately the same boiling point.

Procedure Adopted

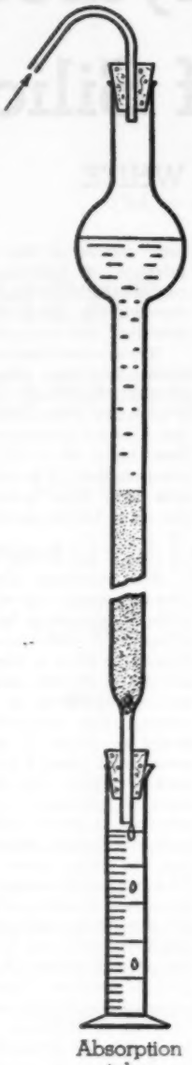
The procedure adopted for these experiments was to measure out 97 ml of the naphthene or paraffin hydrocarbons in a glass-stoppered graduated cylinder. To this was added 5 ml of aromatic hydrocarbon from a pipette. The cylinder was stoppered and shaken, and the refractive index of the mixture observed. It was then transferred to a filtering tube containing 50 g. of fine gel and allowed to filter at room temperature under air pressure of about 4 lb./in.^{2} Some of the tubes were packed tightly with silica gel by tapping the tube until no lowering of the level of the gel could be observed. A great difference in the rate of filtration was noticed, depending on the degree of packing. For those packed tightly, about 48 hours was required for the completion of an experiment, while with those loosely packed, about 16 hours sufficed. No significant difference in effectiveness between tightly packed and loosely packed tubes was observed. The height of the gel in the tubes varied from 36 to 40 cm. Fractions of filtrate collected in graduated cylinders were removed from time to time. These fractions all had the same refractive index, i.e., the refractive index of the pure paraffin or naphthene used initially. When all the filtrate which would drain of its own accord had collected, further hydrocarbon fractions were displaced by adding water at the top of the tube. A sharp line of demarcation showed the position of the water in the tube. The refractive indices of the fractions obtained by displacement with water usually remained constant at the refractive index of the pure paraffin or naphthene in the mixture until the water reached about 3 cm from the bottom of the tube, when a sharp rise in the refractive index occurred. After the first few drops of water appeared in the graduated cylinder, filtration was stopped, tube was disconnected, the bot-

TABLE 1—DATA SHOWING THE SEPARATION OF AROMATIC FROM NAPHTHENE OR PARAFFIN HYDROCARBONS BY ADSORPTION ON 50 GRAMS OF FINE SILICA GEL

Hydrocarbons—	Refractive indices of			Volume and refractive indices of fractions after passage through silica gel								
	Volume of hydrocarbons ml	Hydrocarbons n_D^{25}	Mixtures n_D^{25}	Filtrate		Main portion of filtrate displaced by water		Last portion of filtrate displaced by water		Adsorbed material shaken out with water		Total volume recovered ml
				ml	n_D^{25}	ml	n_D^{25}	ml	n_D^{25}	ml	n_D^{25}	
Mesitylene	5	1.4972	1.4139	62	1.4096	32.5	1.4096	3	1.4496	4.4	1.4683	101.9
n-Decane*	97	1.4098										
m-Xylene	5	1.4949	1.4090	63	1.3950	29.2	1.3950	2.5	1.4068	4.2	1.4677	99.9
n-Octane*	97	1.3952										
Toluene	5	1.4940	1.4237	61.7	1.4202	15.1	1.4202	3	1.4522	2.5	1.4657	99.3
Methylcyclohexane	97	1.4205				17	1.4225					
Benzene	5	1.4977	1.4105	65.5	1.4069	28	1.4094	3.5	1.4209	1.8	1.4610	98.8
Methylcyclopentane	97	1.4069										

*These hydrocarbons had refractive indices a little higher than the values obtained on the best samples isolated from petroleum in this laboratory. They evidently contained traces of aromatics or unsaturated hydrocarbons. After the mixture had run through silica gel, the values of the filtrate approached more nearly the values for the pure hydrocarbons.

tom end stoppered, and the silica gel loosened with a reamer and transferred as a suspension in more water to a 500-ml erlenmeyer flask. During this treatment, an oil layer separated on top of the water and the silica gel settled to the bottom. The oil and water were poured into a separatory funnel, and the water run again onto the silica gel in the erlenmeyer flask, where, by vigorous shaking, it was possible to get a second small quantity of oil to separate. The refractive index of the oil separated from the silica gel in this manner was much higher than that of the original mixture.



The results of these experiments are shown in Table 1, in which are tabulated the refractive indices and volumes of the starting material, the various fractions of filtrate, the filtrate displaced by water, and the adsorbed material shaken out of the silica gel with water. It is evident from the refractive index that the aromatic hydrocarbons were removed from the filtrate, and that in two cases (mesitylene with n-decane and m-xylene with n-octane) the first portion of the filtrate displaced by water was also free from them. For the other two cases, toluene with methylcyclohexane and benzene with methylcyclopentane, a rise in the refractive index of the filtrate displaced by water was noticed. This may have been due to allowing the water to come too close to the bottom of the tube before withdrawing the fraction, or to the fact that the gel had reached its capacity at this stage. The recovery for this series averaged about 98 per cent. From an initial solution of 102 ml, made from 97 ml of a paraffin and 5 ml of an aromatic hydrocarbon, more than 90 ml of pure paraffin hydrocarbon and 5 to 8 ml of aromatic concentrate were obtained.

In Table 2 are recorded results of experiments to determine the capacity of a fine gel, a reactivated fine gel, and a coarse gel, with respect to aromatic hydrocarbons, and of a fine gel with respect to olefin hydrocarbons. When the saturation capacity of fine silica gel is reached, the refractive index of the filtrate rises rapidly, during the passage of a few milliliters, from that of the pure paraffin hydrocarbon to that of the mixture employed.

The capacity of silica gel as an adsorbent of aromatic hydrocarbons depends on the concentration of the solution and also to some extent on the components of the solution from which the aromatic hydrocarbon is being adsorbed. In the first experiment with fine gel, 61.5 ml. of filtrate free from o-xylene was obtained and the o-xylene content of a further 7 ml was reduced by an amount corresponding to its complete removal from 2.9 ml. Thus, 50 g of fine gel was capable of adsorbing 6.4 ml of o-xylene from a 10 per cent solution of that aromatic hydrocarbon in n-nonane. In the second experiment, in which a 5 per cent solution of o-xylene in n-nonane was used, the o-xylene was removed from 107 ml, so that 50 g of fine gel adsorbed about 5.35 ml of o-xylene from a solution of this concentration. In experiment 3, the adsorption capacity of 50 g of fine gel with respect to a different aromatic hydrocarbon, namely toluene, is shown. In this case, 55.5 ml of filtrate free from toluene was obtained and the toluene content of a further 7.2 ml reduced by an amount corresponding to 4.1 ml, so that about 5.96 ml of toluene was adsorbed from a 10 per cent solution of that aromatic hydrocarbon in n-heptane.

The reactivated fine gel is, within the limits of the experiments, as good as the original, because when used with a 10 per cent solution of o-xylene in n-nonane, 55.3 ml of filtrate free from o-xylene was obtained and the o-xylene content of 9.5 ml was reduced by an amount corresponding to 7.2 ml. A 50-g portion of this gel therefore adsorbed about 6.3 ml of o-xylene. The coarse gel removed completely the o-xylene from only 45 ml, and the rise in the refractive index to that of the original mixture did not occur within so small a volume as with the fine gel. The capacity of the coarse gel does not seem to be much less than that of fine gel, about 6.0 ml of o-xylene being adsorbed from a 10 per cent solution in n-nonane by 50 g of gel. Channeling was apparent with the coarse gel and probably accounts for the less effective separation. However, the speed of filtration is much more rapid than with the fine gel and so, for some purposes, it may be preferable. The experiment with diamylene and n-decane shows that silica gel removed completely the olefin hydrocarbon from its mixture with a paraffin. For a solution containing 5 ml of diamylene and 97 ml of n-decane, 40.5 ml of filtrate was obtained free from the olefin hydrocarbon, when 50 g of gel was used. Thus, 50 g of gel adsorbed about 2 ml of diamylene, which volume is approximately one-third that of the aromatic which can be adsorbed by the same quality of gel. This interesting fact may be associated with the number of double bonds in the molecule, o-xylene having three and diamylene one.

Hydrocarbon Separation

These experiments were designed to show the separation obtained when a naphthene hydrocarbon mixed with a paraffin hydrocarbon is filtered through silica gel. As with the preceding experiments, each mixture was made from hydrocarbons with approximately the same boiling point. Naphthenes with both 5 and 6-membered rings and both normal and branched-chain paraffins were used. Since the presence of small traces of such an impurity as an aromatic or unsaturated hydrocarbon would render the results of these experiments unreliable, it was first established that the individual hydrocarbons did not fractionate when passed through silica gel. The results of the experiment are shown in Table 3. A small but quite definite separation occurred in every case, the naphthene tending to be adsorbed by the gel. The first 6 ml of filtrate had a definitely lower refractive index than the original mixture, the first 1 or 2 ml having an index lower than the original by 2 to 3 parts in the third decimal place, which corresponds to a reduction of the naphthene content, from the original 10, to 2 or 3 per cent. The adsorbed material had a definitely higher refractive index than the original. The separation is disappointingly small. Nevertheless, the separation of naphthenes from paraffins is frequently so difficult that a method which gives any separation whatsoever is worthy of consideration as a research tool.

This experiment was performed to determine whether any separation occurred when a mixture of normal paraffin hydrocarbons of different molecular weights was filtered through silica gel. To minimize fraction by evaporation, hydrocarbons with relatively high boiling points (n-nonane and n-tetradecane) were chosen. The n-tetradecane was an Eastman product with refractive index $n_D^{25} = 1.4270$. This material had an odor of cracked compounds so it was filtered twice through silica gel, and yielded a filtrate with refractive index $n_D^{25} = 1.4266$. The n-nonane from petroleum was also given a preliminary filtration through silica gel. The results of these experiments are shown in Table 4. The first 6 ml of filtrate is definitely higher in refractive index than the original mixture and the adsorbed material is definitely lower in refractive index. These results show that the hydrocarbon of low molecular weight was adsorbed in preference to that of high molecular weight. These results are in contrast to what is stated to happen with the lubricating oil fraction of petroleum in which, according to Kalichevesky and Stagner,[5] paraffins of high molecular weight are more readily adsorbed than those of low molecular weight.

Cracking Catalyst

Silica gel is believed to act as a cracking catalyst under certain conditions. Several experiments were performed to determine whether, under the conditions employed here, the gel had any deleterious effect on the oil. Since the filtrates were found to have the same refractive indices as the pure hydrocarbons, it is evident that the gel had no harmful effect on them. The composition of the adsorbed material was also tested. A volume of 8.5 ml of the adsorbed material ($n_D^{25} = 1.4810$), from the previous experiments on the mixtures of o-xylene with n-nonane, was sulphonated with concentrated sulphuric acid. From this was obtained 1.8 ml of unattacked oil with refractive $n_D^{25} = 1.4043$, which is only slightly higher than that of n-nonane. The sulphonated material was then transferred to a flask for hydrolysis and steam passed through at 110° C. to remove any traces of unattacked oil. No measurable quantity was collected at this temperature. The temperature was then raised. Hydrolysis began at 155° C. From 155 to 165° C., 3.5 ml with the same refractive index as o-xylene ($n_D^{25} = 1.5030$) was col-

TABLE 2—DATA SHOWING THE CAPACITY OF CERTAIN SILICA GELS AS ADSORBENTS OF AROMATIC AND OLEFIN HYDROCARBONS

Gel Wt.	Gel Condition	Hydrocarbons	Volume of hydrocarbons	Refractive indices of Hydrocarbons	Refractive indices of Mixtures	Volume and refractive indices of fractions after passage through silica gel: Filtrate* ml	Filtrate* n_D^{25}	Main portion of filtrate displaced by water ml	Main portion of filtrate displaced by water n_D^{25}	Last portion of filtrate displaced by water ml	Last portion of filtrate displaced by water n_D^{25}	Adsorbed material shaken out with water ml	Adsorbed material shaken out with water n_D^{25}	Total volume recovered
			ml	n_D^{25}	n_D^{25}	ml	n_D^{25}	ml	n_D^{25}	ml	n_D^{25}	ml	n_D^{25}	ml
50	Fine	o-Xylene	10	1.5030	1.4132	61.5	1.4039	22.7	1.4132	4.0	1.4533	3.2	1.4922	98.4
		n-Nonane	92	1.4039		7.0	1.4094							
50	Fine	o-Xylene	10	1.5030	1.4084	99.5	1.4039	24	1.4084	7.5	1.4197	6.8	1.4584	203.8
		n-Nonane	194	1.4039		7.2	1.4040							
						4.0	1.4083							
						54.5	1.4084							
50	Fine	Toluene	10	1.4939	1.3953	55.5	1.3850	6.0	1.4207	4.7	1.4620	100.2		
		n-Heptane	92	1.3850		7.2	1.3894	22	1.3953					
50	Fine, reactivated	o-Xylene	10	1.5030	1.4132	55.3	1.4039	9.5	1.4061	5.0	1.4390	6.4	1.4761	100.2
		n-Nonane	92	1.4039				24	1.4132					
50	Coarse	o-Xylene	10	1.4039	1.4132	45	1.4039	9.5	1.4130	4.0	1.4548	4.7	1.4828	99.8
		n-Nonane	92	1.5036		12	1.4049							
						12.6	1.4104	8.0	1.4131					
						4.0	1.4124							
50	Fine	Diamylene	5	1.4330	1.4107	40.5	1.4096	31	1.4105	3.6	1.4108	7.0	1.4146	98.3
		n-Decane	97	1.4096		14	1.4105			2.0	1.4141			

*Small fractions of filtrate were removed from time to time. The total volume of those with the same refractive index is recorded here.

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lected. From 165 to 170° C., 0.3 ml more was collected, with a refractive index $n_D^{25} = 1.5038$.

The results show that n-nonane and o-xylene can be recovered unchanged from the adsorbed material rich in aromatics. Further evidence that silica gel has no harmful effect on these hydrocarbons was obtained from an experiment with a mixture of pseudocumene and n-decane in which the filtrate and the adsorbed material were carefully recombined. In this experiment, the filtrate was collected as one fraction in the graduated cylinder in which the hydrocarbons were mixed. Contrary to the usual practice of shaking the adsorbed material out of the silica gel with water in an erlenmeyer flask, the silica gel and adsorbed material were transferred directly to a distilling flask as a suspension in water and the adsorbed material was distilled over with steam. Its refractive index was then observed and it was recombined with the filtrate. The volumes and refractive indices of the original mixture, the filtrate, the adsorbed material, and the recombined fractions are shown in Table 5. It can be seen that only 0.6 ml was lost in this procedure. The greater part of this loss probably occurred in the adsorbed material of high refractive index, which underwent more operations than the filtrate. The slightly lower refractive index of the recombined material (only 3 parts in the fourth decimal place) is attributable to the proportionately greater loss of adsorbed material. It is evident that no appreciable harm, if any, was done to the oil.

Adsorption on silica gel has been used in this laboratory to remove aromatic hydrocarbons from a 17-liter fraction of petroleum distillate boiling normally between 140 and 145.5° C. It consisted chiefly of a mixture of isononanes and some naphthenes, but it also contained a small amount of aromatic constituents. The last named were originally present in large quantities, and although an interlocking process of extraction with liquid sulphur dioxide and fractional distillation had been used to remove the greater part of them,* some still remained. In a final distillation the portion immiscible with sulphur dioxide had been separated into 0.5° C. cuts. The material boiling near 140° C. and near 145° C. smelled faintly of aromatic hydrocarbons. Samples of these fractions also yielded upon nitration a small amount of nitro product in the form of a red oil. In the material boiling between 142 and 144° C., where the bulk of paraffin constituents had concentrated, only a little aromatic material could be detected. Nitration tests showed that the average aromatic content of the whole distillate was about 2 per cent.

Nature of Distillate

In addition to the constituents mentioned, the distillate contained some "cracked" material. After distillation, it had been stored in glass bottles for three years. When the present work was begun, it was observed to have deposited a thin ring of gum where the oil surface wet the bottle. Likewise, a film of sludge was observed at the bottom of the oil, notably in the bottles containing distillation residues. The residues were also consistently yellow in color and possessed an unpleasant odor. To ascertain if the color, odor, and gum could be removed by adsorption, a sample of residue was filtered through a column of silica gel. As more and more oil passed through the gel, the top layer became colored—at first a light amber, later an amber red. (This coloration likewise had been observed when the olefin, diamylene, was passed through gel.) Some of the coloration produced on the gel was attributed to the polymerization or oxidation of unsaturated hydrocarbons arising from the cracking of the oil during distillation. The filtered oil was colorless and had no unpleasant odor, which was taken to mean that gum had been removed completely by the gel. Once the gum was removed, the oil remained stable with further filtration as evidenced by the fact that no further coloration was produced.

To remove both aromatic hydrocarbons and gum from the distillate, it was filtered through silica gel in essentially the same manner as were the synthetic mixtures of hydrocarbons. Oil was recovered from the spent gel in a similar way.

In this operation, it was obvious that, since the capacity of the gel to adsorb aromatic hydrocarbons varied with their concentration in the oil being filtered, some aromatic material adsorbed from more concentrated solutions would be dislodged from the gel when oil with a lower aromatic concentration was filtered through. To prevent this occurring all of the distillate was blended, before filtering, into three fractions corresponding approximately to constant-boiling mixtures. These are listed in Table 6 according to their boiling range.

In practice, coarse gel was used for the most part because of the decidedly shorter time required to filter 17 liters of oil. Although its effectiveness in removing aromatic constituents was somewhat less than that for fine gel, because of channeling, the difference was minimized by using columns no greater than 3 cm in diameter. When channeling had obviously occurred, the oil was refiltered through fresh columns of gel. The columns were about 50 cm long. One measuring 2 by 50 cm held about 100 g of gel; one measuring 3 by 50 cm held 200 g. The time required for oil to flow from top to bottom of the column, under a hydrostatic head of 10 cm of oil, was about 20 minutes. Longer columns were not used because it was more difficult to remove the gel.

The procedure adopted for the systematic filtration was as follows. A portion of the blended distillate was filtered through the columns of gel. Portions of filtrate were removed until the first rise in refractive index was observed and were stored as being free of aromatics. This procedure was followed since it had been shown with the synthetic mixtures of hydrocarbons that the filtrate was free of aromatic material until a rise in refractive index was noted. As a comparison it was found that material purified by the silica gel was lower in refractive index by 0.0001 than the raffinate from treatment with a nitrating mixture. Further fractions of filtrate were collected until the refractive index attained that of the oil being filtered, at which time the gel had become saturated. This material was refiltered.

Saturated Gel

The columns of saturated gel were allowed to drain until oil ceased to flow, after which adhering oil was displaced by the addition of water at the top. The gel was then removed from its tube and the adsorbed oil recovered by shaking with water or distilling with steam.

In Table 6 are listed the volumes and refractive indices of the fractions of petroleum distillate before and after filtering them through silica gel. The volumes listed for the fractions of adsorbed material are large in proportion to the aromatic content of the original distillate because some of the oil adhering to the gel was mixed with the fraction adsorbed. This caused a correspondingly lower refractive index for the combined fraction than that for the adsorbed material alone.

This experiment with one petroleum fraction shows that silica gel adsorption should prove to be a useful tool in the investigation of the composition of petroleum distillates.

TABLE 3—DATA SHOWING THE SEPARATION OF NAPHTHENE FROM PARAFFIN OR ISOPARAFFIN HYDROCARBONS BY ADSORPTION ON 50 GRAMS OF FINE SILICA GEL

Hydrocarbons—	Volume of hydrocarbons ml	Refractive indices of Hydrocarbons n_D^{25}	Refractive indices of Mixtures n_D^{25}	Volume and refractive indices of fractions after passage through silica gel: Filtrate* ml	Filtrate* n_D^{25}	Main portion of filtrate displaced by water ml	Main portion of filtrate displaced by water n_D^{25}	Last portion of filtrate displaced by water ml	Last portion of filtrate displaced by water n_D^{25}	Adsorbed material shaken out with water ml	Adsorbed material shaken out with water n_D^{25}	Total volume recovered ml
n-Heptane	92	1.3850	1.3885	1	1.3861							
				3	1.3866							
Methylcyclohexane	10	1.4202		2	1.3879	24.6	1.3886	...	.....	7.6	1.3893	98.9
				60.7	1.3885							
2,2,4-trimethylpentane	92	1.3890	1.3922	2	1.3898							
				4	1.3910	7	1.3922					
Methylcyclohexane	10	1.4202		11.5	1.3921	24.7	1.3928	1.5	1.3932	3.2	1.3930	100.9
				47	1.3923							
n-Octane	50	1.3950	1.3980	1.5	1.3954							
				2.2	1.3969							
Nonanaphthene (a cyclopentane)	5	1.4273		2.0	1.3973	27.5	1.3980	...	.....	8.5	1.3987	53.2
				11.5	1.3980							

*Small fractions of filtrate were removed from time to time. The total volume of those with the same refractive index is recorded here.

TABLE 4—DATA SHOWING THE SEPARATION OF NORMAL PARAFFIN HYDROCARBONS OF DIFFERENT MOLECULAR WEIGHTS BY ADSORPTION ON 40 GRAMS OF FINE SILICA GEL

Hydrocarbons—	Volume of hydrocarbons ml	Refractive indices of Hydrocarbons n_D^{25}	Refractive indices of Mixtures n_D^{25}	Volume and refractive indices of fractions after passage through silica gel: Filtrate* ml	Filtrate* n_D^{25}	Main portion of filtrate displaced by water ml	Main portion of filtrate displaced by water n_D^{25}	Last portion of filtrate displaced by water ml	Last portion of filtrate displaced by water n_D^{25}	Adsorbed material shaken out with water ml	Adsorbed material shaken out with water n_D^{20}	Total volume recovered ml
n-Tetradecane	25	1.4266	1.4156	1.5	1.4196							
				2.3	1.4179							
n-Nonane	25	1.4039		2.3	1.4158	21.5	1.4155	4.0	1.4152	6.0	1.4124	47.8
				10.2	1.4156							

*Small fractions of filtrate were removed from time to time. The total volume of those with the same refractive index is recorded here.

TABLE 5—DATA OF AN EXPERIMENT TO ASCERTAIN WHETHER SILICA GEL DECOMPOSES A MIXTURE OF N-DECANE AND PSEUDOCUMENE

Material—	Volume ml	n_D^{25}
Mixture	98	1.4182
Filtrate	88	1.4122
Adsorbed material steamed out of gel	9.4	1.4765
Recombined fractions	97.4	1.4179

TABLE 6—VOLUMES AND REFRACTIVE INDICES OF FRACTIONS OF PETROLEUM DISTILLATE BEFORE AND AFTER FILTERING THROUGH SILICA GEL

Boiling range 760 mm before filtering, °C.—	Volume: Before filtering ml	After filtering— Filtrate ml	After filtering— Adsorbed ml	Lost by filtering ml	Refractive index: Before filtering n_D^{25}	After filtering— Filtrate n_D^{25}	After filtering— Adsorbed n_D^{25}
140 to 142.5	5,230	4,905	210	115	1.415	1.4125	1.445
142.5 to 144	5,850	5,380	360	110	1.4125	1.4115	1.425
144 to 145.5	5 660	5,150	460	50	1.418	1.416	1.438

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Extensive Research to Determine the Methods for Testing Lubricating Oil

By C. W. WOOLGAR
University of Birmingham, England

THE FINAL CRITERION OF A lubricating oil is its performance under service conditions, its ability to reduce friction and prevent seizing of the bearing surfaces under widely varying conditions of temperature, bearing pressure and rubbing velocity for as long a period as possible without deterioration. Though a little can be learned by subjecting the oil to physical and chemical tests such examination does not give very precise information as to its behavior under the conditions of service. The essential lubricating properties of an oil can only be judged from the results of a mechanical test. Unfortunately, neither the procedure nor the machine for a mechanical test of lubricating oil has yet been standardized. S. R. and T. A. McKee[1], working for the Lubricants Subcommittee of the S.A.E., took nine different lubricating oils and tested them on four testing machines. They found that no two machines grouped the oils in the same order of merit. The only real test of an oil is a long run under normal operating conditions in the engine in which that particular type of oil is to be used, but such service tests take a long time, are very expensive, and in some cases, are impossible to carry out without the risk of damaging a large and expensive piece of machinery.

The modern theory of friction admits of three types—dry friction, which occurs when the two solid surfaces are in actual "contact," so close to one another that the unbalanced fields of attraction of their surfaces molecules can affect one another, and eventually when a large enough percentage of their surfaces are in this state, cause cohesion, or seizing: this is, naturally, the state which the designer of bearings is anxious to avoid.

Boundary, or ragged edge, friction denotes that state in which the bearing surfaces are separated by a thin film of molecular dimensions adsorbed at the surface. The friction is due both to the force necessary to shear the molecular layers of the third substance, and to overcome any residual molecular attraction of the two bearing solids. The work of Langmuir, G. N. Lewis, Harkins and others on thin films made possible this theory of boundary lubrication, although Deeley[2,3], had put forward a very similar idea before their work had been applied to lubrication problems.

The third type of friction occurs in perfect, or fluid film, lubrication in which the two bearing surfaces are separated by a film of lubricant of appreciable dimensions and in which, as Osborne Reynolds showed, the friction for a given bearing running under given conditions is directly proportional to the viscosity of the lubricant. The term "greasy lubrication" is sometimes applied to the range of conditions between boundary and fluid film lubrication —i.e., when the friction is dependent partly on the viscosity and partly on the "oiliness" of the oil—the term "oiliness" being used to denote the tendency towards the adsorption and adhesion to a metallic surface shown by a lubricant used under the boundary conditions.

The early work on bearing lubrication concerned itself with testing out the hydro-dynamical theory of bearings put forward by Osborne Reynolds[4] in 1886 rather than with testing lubricating oils. Many experimental machines consisting of a journal bearing and devices for loading it and measuring the friction torque were made but results were always interpreted from bearing design considerations and generally only one lubricant was used in the course of the experiments. Indeed Imer[5] has collected and discussed data from 21 such papers, from the bearing theory point of view.

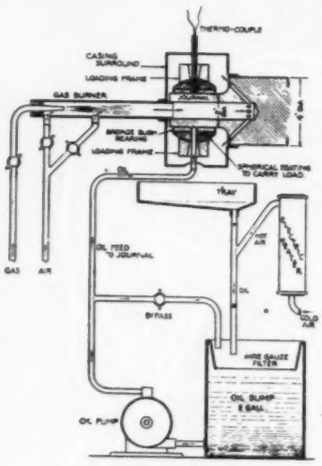


Fig. 1 — Journal heating and oil circulating system

Oiliness

The general concept of "oiliness" was first put forward by Kingsbury[6,7] and brought into more general view by him at the first meeting of the A.S.M.E. special research committee on lubrication[8] in 1915, the contributing factors to oiliness being published in 1919.[9]

Herschel[10] has defined "oiliness" as "the property which causes a difference in the friction when two lubricants of the same viscosity at the temperature of the film are used under identical conditions," and has designed an instrument for measuring this quantity.

The simplest method of comparing the oiliness of lubricants of different viscosities depends on the fact that the viscosity effect becomes inoperative at zero rubbing velocity and two familiar machines based on this principle are the Deeley friction machine[12], and the Hardy slider[13], which measure the coefficient of static friction between carefully prepared surfaces under conditions of boundary lubrication. Unfortunately, as emphasized by Herschel and others[14], oiliness depends not only on the oil but on the composition and also the geometrical finish of the bearing[15], so it is doubtful if results from the Deeley machine would correlate well with service conditions. M. D. Hersey[16] points out that oiliness is at present a vague term and there is urgent need for a definition of oiliness in known physical units. If it is assumed that the Langmuir adsorption theories give a true explanation of the superior lubricating properties of some oils over others, then it should be possible to devise an instrument to measure this adsorption effect in fundamental units—the number of molecules of the oil under test adsorbed per square cm. of bearing surface and the adhesive force—in dynes per molecule, necessary to detach them from the surface. Admittedly to work out such a method would need a great deal of ingenuity and a deep knowledge of molecular physics.

Other machines which attempt to measure oiliness are those of Woog[17], Voitlander[18], Buche[19] and Neeley[20], but in general they are not suitable for a commercial testing laboratory owing to the time and care needed to prepare the bearing surfaces and to the doubtful practical value of the results obtained.

Early Machines

One of the first machines designed specifically to test oils was the Benjamin oil tester, described by Sibley[21] in 1909. This consisted of two half bearings pressed on the journal by springs, with a device for measuring the friction torque; it was run at 500 r.p.m., the oil being supplied at the rate of 6-8 drops per minute for two hours, after which the oil was cut off and the number of minutes the journal would run until the oil ceased to lubricate, and seizing started, was taken as a measure of the durability of the oil. This machine was thus a forerunner of such modern types as the Almen machine which also tests an oil by running until seizing occurs. In 1919 Lanchester[22] published the results obtained with his worm gear dynamometer, designed in 1913[23], and further work by Hyde at the N.P.L. for the D.S.I.R. Lubricants and Lubrication Subcommittee[12] confirmed his findings that, especially at high loads and low speeds, two oils of the same viscosity often gave different frictional results owing to the superior oiliness of one of them. The machine, which is rather large and complex, measures the friction reducing properties of an oil by the efficiency of a worm and gear lubricated by it. The maximum efficiency range with the oils used was from 91.5 to 95.9 per cent, and therefore the obvious criticism is that the small range of measurements covering a complete range of oils from very good to very bad negatives the possibility of differentiating between oils of nearly the same lubricating value.

The Stanton pendulum machine[24] was also designed for studying boundary lubrication in worm gears and systems where the relative motion is of a reciprocative character, but owing to the large effect on the

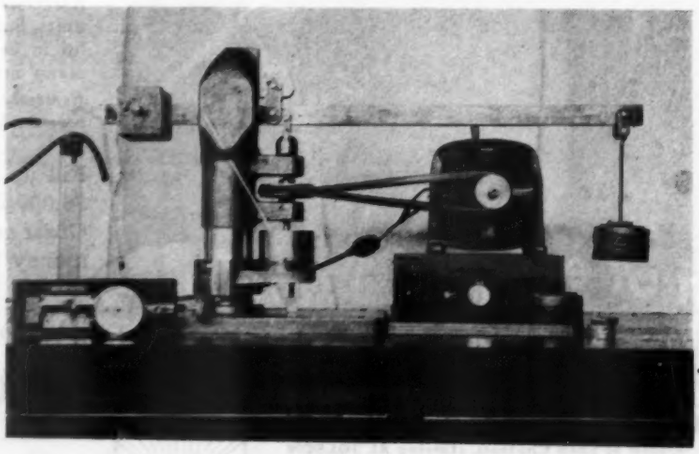
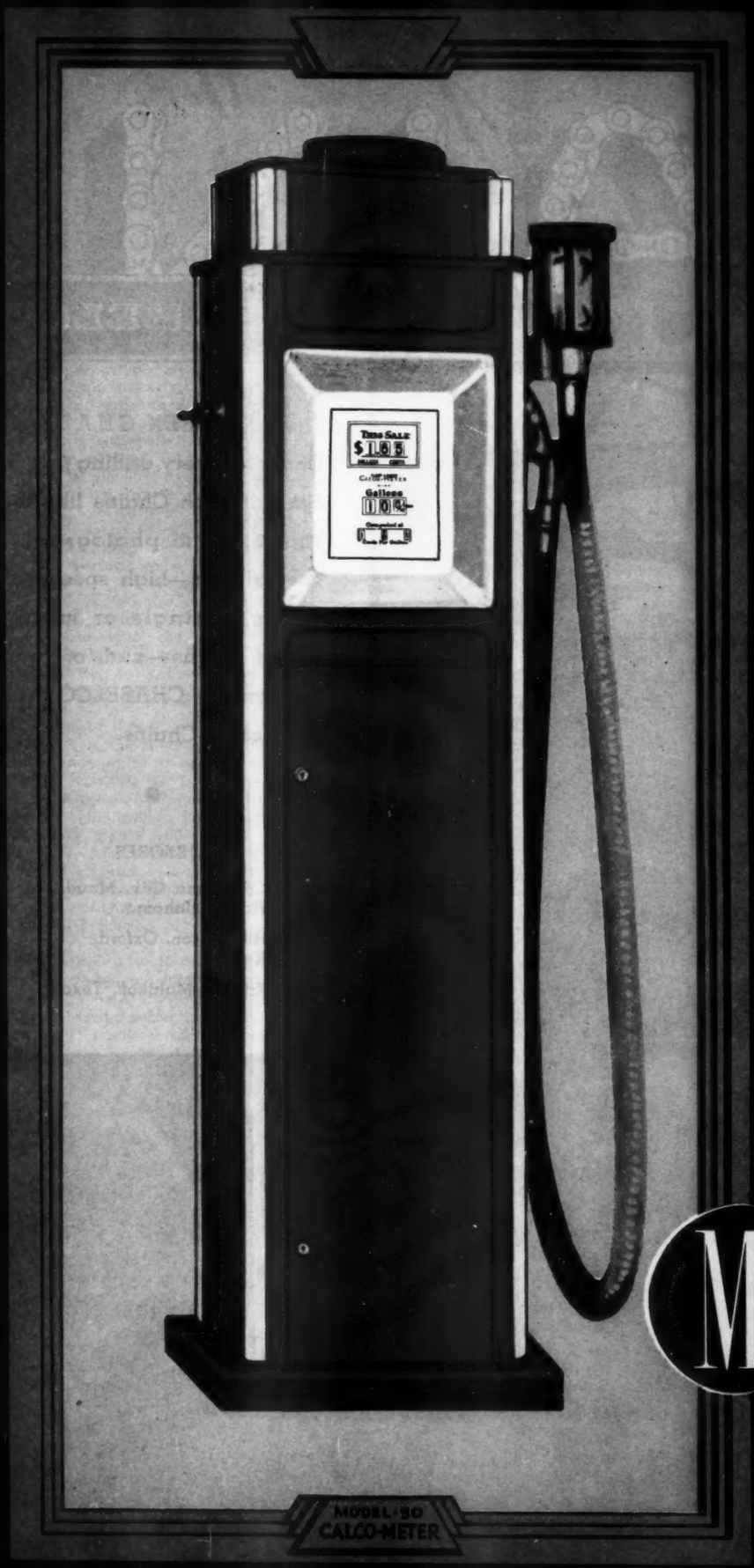


Fig. 2—Testing machine used by Phelps to determine oiliness



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measured friction caused by slight changes in the shape and design of the special bearing surfaces this machine is not of much use for the general testing of oils.

The Thurston[23] and the Boult[25] friction testing machines are two of the older types that are still in use. The Thurston machine consists of a bearing pressed against a horizontal rotating journal by means of an adjustable vertical spring which, enclosed in a casing, is free to swing, and the deflection of this pendulum from the vertical gives a measure of the friction torque. Oils are graded according to the time taken for the friction coefficient under specified circumstances to double itself, or, alternatively, until the bearing temperature reaches 212° F. The Boult machine is somewhat similar to the Thurston machine, but its bearing is surrounded by an oil bath which can be heated to any desired temperature and the bearing pressure is fixed: it is particularly used for testing steam cylinder oils.

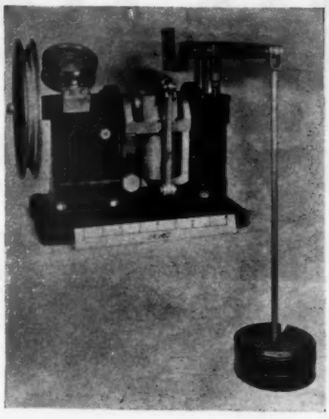

Fig. 3 — Almen extreme-pressure lubricant testing machine

The Ingram and Stapfer[25] oil tester, though of different design, also measured the worth of an oil by the time taken for a bearing to heat up to 200° F., using a weighted quantity of oil under specified running conditions.

It is extremely doubtful whether the "durability" of an oil as measured by these early methods bears any relation to its behavior under working conditions. In 1926 the U. S. Department of Commerce[26] published the results of a comprehensive series of engine tests on lubricating oils made from California crudes and at the same time carried out the usual chemical and physical tests on the oils both before and after use. For some reason, however, they neglected to try and correlate the results of their engine tests with the mechanical tests of lubricating oils in use at that time.

In 1922 Wilson and Barnard[27] reviewed the literature on oiliness and lubrication and pointed out the lack of reliable information on the effects of oiliness on bearing performance and, in a later paper, Barnard[28] tabulates nine factors on which the coefficient of a bearing depends and concludes, from his experimental results, that the transition point from stable to boundary lubrication occurs at lower values of the well known $\frac{ZN}{P}$ modulus the higher the oiliness of the oil. He also found that, for commercial lubricating oils, the variation of the modulus at the transition point was not more than 10 per cent.

Extreme Pressure

During the decade from 1920 to 1930 not a great deal of work appears to have been done on the mechanical testing of lubricants, but towards the end of this period the search for lubricants capable of standing up to the high pressures borne by modern automobile gear and back axle assemblies caused extreme pressure lubricants to be produced and interest in mechanical testing revived. Before dealing with these, however, one method for grading ordinary mineral lubricants must be mentioned. In 1930 it was pointed out that the viscosity, acidity and sludge value of an oil all changed during service, and chemical and physical tests gave little indication of the likely amount of this deterioration, so the Navy Work Factor Method was tried out[29], in which a loaded test bearing lubricated with the oil is run for 100 hours under specified conditions and the viscosity at 100° F., 130° F. and 210° F., the sludge value and the neutralization number of the oil are determined before and after the test. The changes in these quantities are then combined to give a work factor of the oil, the highest factor possible for a perfect oil being 1.00—i.e., no change in the various values occurs—while .75 is given by a good oil. It is believed[29] that in conjunction with some oiliness test this factor will be of real use in evaluating lubricating oil samples.

In 1931 Wooler[31] says that, having difficulty in obtaining details of such tests from oil companies, the Timken Roller Bearing Co. decided to build machines for themselves. Two machines were constructed—one to measure the breakdown load and the other the extreme pressure qualities of the oil under test. The breakdown test machine consisted of a test block three-quarters inch by one-half inch square which is pressed against a revolving Timken bearing cup by a system of levers so that pressures up to 20,000 pounds per square inch could be used. The tangential drag on the block, due to the friction produced, was neutralized by a secondary lever system calibrated so that the coefficient of friction could be read off directly. The block and cup were of nickel/molybdenum steel, and a new cup and block surface were used for each test. The oil was run by drip feed to the block and picked up by a return pump to the oil tank. In the latest model the load is not increased until seizing occurs, as was done originally, but runs are carried out at rubbing speeds and pressures suitable for the particular lubricant, and after 30 minutes the block and cup are examined for signs of wear. The chief criticism of this, and many other such machines, is that the unit bearing pressure is not known. However, this is not so serious as it might at first seem, and the Timken extreme pressure lubricant testing machine can give great help in evaluating an extreme pressure lubricant. A machine for studying the abrasive properties of oils was also designed, in which the actual drop in height, due to wear, of a vertical loaded shaft supported by a collar bearing, was measured after a 200-hour run under standardized conditions.

In a paper on "Classifying Transmission and Rear Axle Lubricants," Larson[32] describes a simple machine in which a circular bushing is progressively loaded until it begins to seize on the journal, the seizing point being noted by the sudden rise in the ammeter and voltmeter readings of the electric motor driving the journal shaft. It was found that the surface of the bush and the clearance factor had little effect on the seizing pressure, which is somewhat in conflict with the statements of Barnard[28] and others who have insisted on the importance of such factors as fit, bearing material, etc., on the friction, though admittedly work was on normal lubricants and not on E.P. lubricants.

In 1932 Wolf and Mougey[33] described the Almen extreme pressure lubricant testing machine and point out that unless testing machines will rate a series of lubricants in the same order of merit as they are rated in service the data obtained is worthless. S. R. and T. A. McKee[1], however—loc. cit.—found it impossible to choose sets of conditions for their four test machines such that all four would group the nine lubricants used in the same order of merit. They, however, operated a test machine under the same conditions of rubbing speed, pressure, etc., whatever lubricant they were testing—from a straight mineral oil to an E.P. lubricant, whereas suitable conditions should be chosen for testing a particular class of lubricant and the operating conditions altered when a different type is tested.

The first "General Motors Machine"[34] was developed before sufficient data was available for calibrating laboratory testing machines in terms of service conditions, and many lubricants which would carry the full load on test failed in service, so a small portable machine, known as the Almen extreme pressure lubricant testing machine, was developed, capable of checking with service tests.

The machine consists of a quarter-inch cold drawn steel drill rod journal and a half-inch split bushing, the journal being polished and the bushing being ground to .007-inch clearance. A loading device and oil cup are used and, at 600 r.p.m., 2-pound weights are added every 10 seconds—equivalent to 1,000 pounds per square inch of projected area—until seizing occurs, or until 30 pounds have been added. This method has been found to grade the oils most in accordance with the service conditions experienced by E.P. lubricants in rear axles employing steel on steel spiral bevel or hypoid gears.

A very ingenious testing machine is described by Boerlage[35] consisting of three half-inch steel balls held tightly together by a slightly conical ring surrounding them, while on top of them, forming a four ball pyramid, a fourth ball rests, fixed to a rotating vertical shaft which can be loaded to any desired pressure. The instrument is, in effect, a footstep bearing with three-point contact. An arrangement of balance weights is used to measure the torque given to the three base balls which rest on a horizontal steel table free to revolve on a ball race. Care is taken to imitate the speed and approximate load of the gears for which the oil under test is intended, and the highest load a ball would stand for one minute without seizing was taken as a measure of the merit of the oil. No comparison of the grading was made with that obtained from other machines and the effect of the surface finish and material of the balls on the seizing load was not studied. Actual coefficients of friction cannot easily be measured owing to the three lower balls being supported by a table which is free to revolve and the frictional resistance to rotation of which is not known; furthermore in common with the Timken test machine, unit bearing pressures cannot be obtained owing to lack of knowledge of the contact area of the surfaces.

Phelps Type

A somewhat similar type of machine (see Figure 2) which rates oils according to the pressure necessary to rupture the oil film and cause seizing is described by Phelps[36], and consists of a rotating vertical shaft carrying at its lower end a carefully prepared flat bearing surface which rests on a fixed surface: Lubrication is effected by surrounding the two surfaces with an oil cup, and also by oil ways drilled to the bearing surfaces. The shaft is run for 10 minutes, unloaded, at a speed of 500 r.p.m., giving a rubbing speed of 65 feet per minute, and then 1-pound weights were applied—equivalent to 125 pounds per square inch—at five-minute intervals, until in the vicinity of

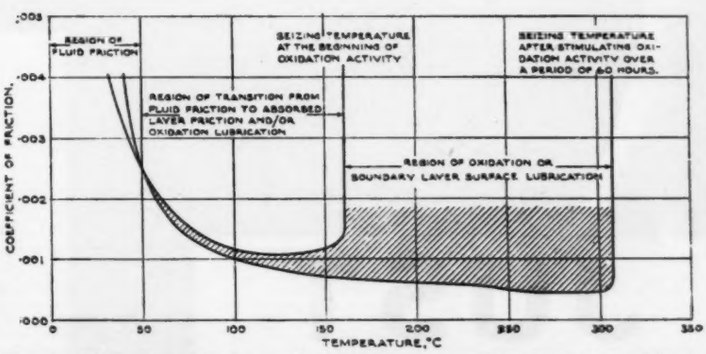

Fig. 4—Effect of oxidation on lubricating value. Load on journal bearing 1,000 lb. per sq. in. of projected area. Air at 160° C. blown into circulated 2-gal. test sample of oil; surface speed 11.3 ft. per second

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the seizing pressure, when 2 pounds were added every minute until seizing occurred.

From the results obtained on this machine it was concluded that it is possible to compare the oiliness of lubricants by the unit bearing pressure necessary to rupture the oil film. Furthermore, providing care is taken to duplicate conditions of polish of the surfaces, rubbing speed, etc., duplicate results can be obtained. No comparison was made with the results obtained by other machines, but it is possible that quite a good idea of the oiliness of lubricants might be obtained from this apparatus, though extensive work on the effects of rubbing speed, bearing finish, etc., would be necessary before it could be used as a standard method, for Caldwell and Thomson[37] have shown that both the rubbing speed and the degree of polish of the bearing surfaces have a great effect on the friction and oiliness in the region of boundary lubrication.

At the Automotive Engineers Congress, held by the S.A.E. in September, 1933,[38] the details of a machine for evaluating E.P. lubricants were given, consisting of two automatically aligned test rolls which could be driven at different speeds, thus being able to obtain all grades of relative motion from pure rolling to pure sliding. It was stated that the point at which lubrication fails is quite definite and that over the operating range used the machine appeared to rate lubricants in agreement with their service performance ratings.

A German machine has recently been designed[39] for testing oils from 15° C. to 200° C. over bearing pressures of .5 to 100 kilograms/square centimeter at rubbing speeds of from 6 to several hundred meters per minute. As the bearing surfaces consist of a test block held against a hollow rotating journal it is difficult to see how the unit bearing pressure can be measured since the area of the contact surface is unknown. The value of the oil is judged by a consideration of the pressure, rubbing speed and temperature/friction curves.

In 1921 Hardy and Nottage[40] found that by removing the active polar constituents of a mineral oil by filtering it over silica beads the lubricating properties were reduced, but that after standing for a few days in contact with air it partially recovered: in an atmosphere of nitrogen, however, there was no recovery. In 1924 Gilson,[41] using a lightly loaded and very thick oil film at 200° C. in an oxidizing and then an inert atmosphere, suggested that "the act of lubrication is simply the acts of oxidizing the oil."

These results appear to have been disregarded until R. O. King[42, 43, 44, 45] showed that, using a heavily loaded film under strong oxidizing conditions at temperatures up to 300° C., there exists an unexplored region of lubrication which depends on the oxidizing properties of the oil and only on its viscosity in so far as it bridges the gap between normal lubrication and the high temperature oxidation lubrication. Extraordinary low coefficients of friction were obtained of the order of .0005 at 300° C.

Jakeman Oil Tester

He used a Jakeman oil testing machine, consisting of a hollow horizontal journal through which a gas flame could be directed and, the load being kept constant, a seizing temperature instead of a seizing pressure served to evaluate the oil. The friction torque could be measured and the coefficient of friction obtained: the oil feed was by force pump and after leaving the bronze bush the oil was intimately mixed with air at 160° C. before returning to the oil tank; a rubbing speed of 11.3 feet per second and a load of about 2,000 pounds/square inch bearing pressure was used. The performance of an oil was judged partly by the coefficient of friction at the temperature of minimum friction and partly by the seizing temperature, the minimum friction being experienced at a temperature just below that of seizing. Increase in the length of a run, and therefore in the oxidation of the oil, caused a steady rise in the seizing temperature: in one case the seizing temperature rose from 148° C. after two hours running to 279° C. after 48 hours running.

Other revolutionary statements have been made by D. P. and E. R. Barnard[46] at a recent A.P.I. meeting: they point out that excessive wear may sometimes occur in internal combustion engines through the addition of "oiliness" materials to the crankcase lubricant. They have measured the boundary friction coefficients of a large number of oils of all types and they conclude that no effect appears in the data which may be ascribed to the presence or absence of substances promoting increased oiliness in the oil; furthermore, little relationship exists between the conditions used in oiliness testing machines and the operating conditions in which the lubricants are placed in service. Summarizing their conclusions, the authors state that up to the present the nature of oiliness has not been satisfactorily explained, although its existence is recognized. No definite evidence of the effects, beneficial or otherwise, of oiliness in the lubrication of the internal combustion engine has been obtained. These statements are extraordinary in view of some of Barnard's previous papers,[27, 28] in which oiliness is recognized and its measurement and influence discussed in the orthodox manner. To illustrate the confusion which exists even today on this question, W. Miller,[47] replying to Barnard's paper, insisted on the advantage and additional benefit to be obtained from increasing the "oiliness" of lubricants as shown by controlled road tests on various types of automobiles over more than a million miles. He also stated that long time accurately controlled road tests appear to be the only dependable method for evaluating a lubricating oil, laboratory mechanical testing being only of secondary use and in many cases unreliable. He promised that shortly the results of very extensive researches by continental workers on oiliness and lubrication, which have included X-ray diffraction studies of lubricating films on metals, the relationship between chemical structure and lubrication, corrosion effects of lubricants, and dynamometer, friction testing machines and road tests, would shortly be published, and it was hoped that when these results had all been correlated the present uncertain situation with regard to the value of "oiliness" in lubrication would be cleared up.

Field for Research

There are one or two broad lines along which research might be profitably directed. Several attempts have been made to work different test machines so that they would grade oils in the same order of merit, and these have all failed,[26, 27] but this has probably been due to the fact that a wide variety of oils were used, and the same operating conditions were used for a given machine whatever the oil tested. One useful line of research would be to find operating conditions for the various testing machines used suitable for each particular type of oil, the conditions being made as near as possible to those encountered in actual service. It would probably be found then that any machine would grade a series of oils of the same general class in the same order of merit, but it is not likely that if all types of lubricants are mechanically tested under the same specific conditions that the machine will give useful information about all of them.

Lubrication in general, and oiliness in particular, are highly scientific problems depending for their ultimate solution on an exact knowledge of molecular physics, the reactions of surfaces and surface crystal structures, and it is likely that a greater advance would be made in this subject if more attention were paid to applying fundamental physical laws and theories to the problem than to spending large amounts of time and money in inventing, and attempting to correlate with service conditions, such purely empirical tests as those mentioned above. For this reason those continental workers mentioned by Mills[47] who have pressed the tools of the modern pure physicist into their service are to be highly commended, for it is only along lines such as these that the problem will finally be solved and the "art of lubrication" be transformed into an exact science.

IMPORTANT BOOKS for the Oil Man

"GEOLOGY OF NATURAL GAS"

A symposium of 38 papers prepared by 47 authors on the "Geology of Natural Gas" has just been published by the American Association of Petroleum Geologists and edited by Henry A. Ley, Fort Worth, Texas. This work was instigated by the late Dr. Sidney Powers and also Dr. Frederic H. Lahee, who believed that the geological knowledge of natural gas should be recorded. They laid the foundation for this volume.

This book of 1,227 pages assembles for the first time a comprehensive geologic treatise of the occurrence of natural gas on the North American Continent. It also deals with some unsolved problems, important from an economic standpoint, concerning the occurrence of gas only without associated oil on a structure, in a reservoir or in a far-reaching area.

In this book will be found important economic, engineering and statistical data. Two papers describe the estimation of natural gas reserves, a subject not adequately treated heretofore.

"Geology of Natural Gas" may be purchased through the Book Department of The Oil and Gas Journal at the regular established price of $6.00, express prepaid. A copy will be forwarded promptly upon receipt of check or money order for that sum. Where no payment accompanies the order, the book will be sent express c.o.d.

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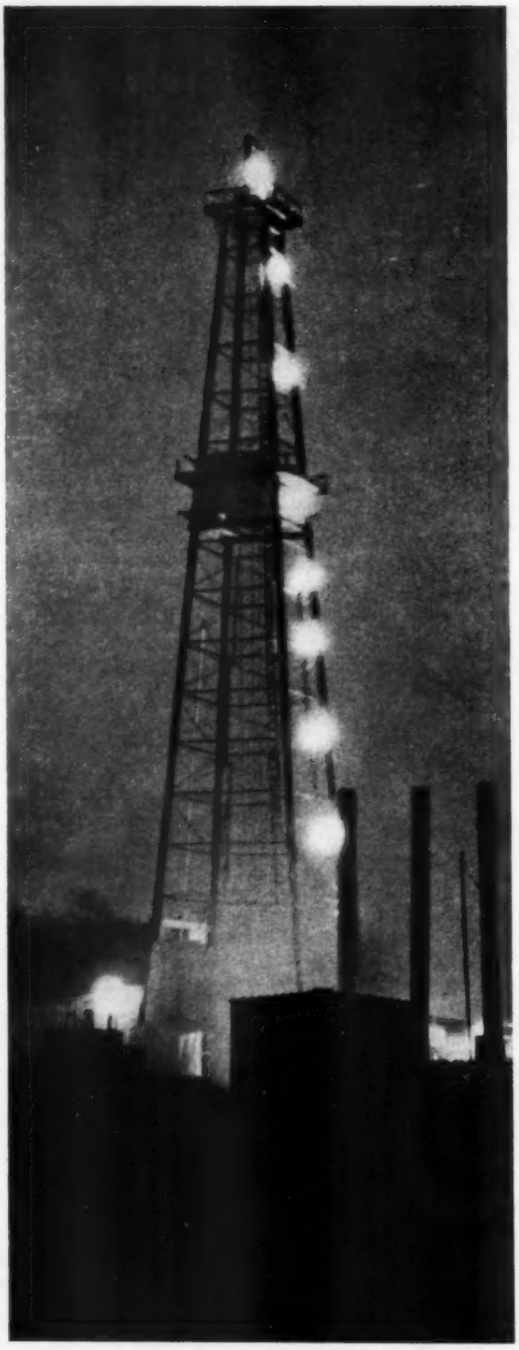

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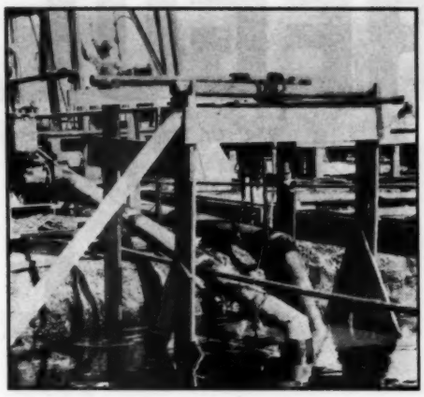
OPERATING IDEAS

Adjustable Siphon

A simple type of water siphon for a wooden treating tank is shown in accompanying picture. A 3-inch pipe is connected to the bottom of the tank and extends upward in a vertical position. The upper end of this pipe is swaged and provided with a packing gland and through this gland a joint of 2-inch pipe is fitted. This 2-inch pipe extends upward and is one leg of an inverted "U", the top of this "U" determining the water level within the tank. To vary this water level the "U" is raised or lowered by the use of a lever as shown in the illustration, extra pins being provided to place in holes burned in the smaller pipe. One leg of the siphon discharges into the large vertical section of pipe.



Suction Pipe Winch

The suction pipes on the slush pumps used in rotary rig operation must be lowered and raised to accommodate changes in the fluid level of the pit. To handle these heavy pipes conveniently it is usually the practice to erect a structure such as shown in the accompanying picture. Here the wooden frame supports two short lengths of pipe around which the ropes leading down to the suction pipes are wound. These crude winches are turned with a chain tong to wind the rope. By use of a counterweight and taking several wraps around the small pieces of pipe there is sufficient friction to enable the operator to hold the suction pipe in any desired position below the surface.

Fuller's Earth Furnace

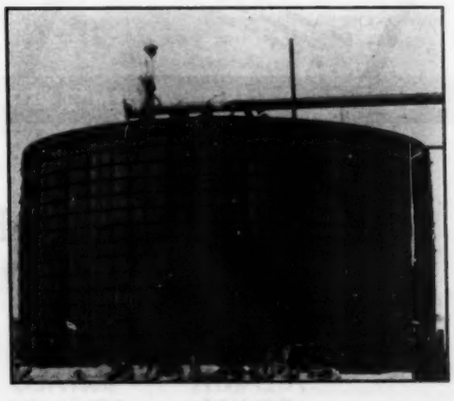
To remove coloring matter from distillates, the oil is usually filtered through fuller's earth. In time this earth becomes exhausted and must be revivified. This may be accomplished by heating the earth and commercial burners have been developed. In the accompanying cut, however, is a furnace built to take care of a small job. It is made from channel iron and lined with flat fire brick 2-inches thick and 12 inches square. The heat is secured from gas, a flame passing under the fire brick floor in the burner. These brick become red hot and after the fuller's earth has been exposed to this heat for about 12 hours it is revivified and suitable for use. The capacity of this furnace is about 100 pounds per batch. The top may be lifted for stirring the earth.

Protective Shield

A welding shield made from sheet iron which travels on the pipe as the welder follows around the welding seam. Shields the wind from the welding torch. In the Panhandle, where this picture was taken, the wind blows practically every day, and without this shield it would be impossible for the welder to make a good, tight weld.

Tight Deck Wooden Tanks

The old type tapered stave open top wooden tanks are being superseded by a more modern design of wooden tanks. These new tanks have straight staves and the edges of the staves are grooved in a manner to provide a water course between staves from the top of the tank to near the bottom. The tank deck is tight and a shallow pool of water is carried on top of the deck and some of this water is conducted into the water course between staves. This precaution is taken because the upper part of wooden tanks have a tendency to dry out when the tanks are empty as the upper zone is the least wetted of any part of the tank. These tanks are provided with round wrought iron hoops equipped with turnbuckles and can be pulled up as needed. These straight side wooden tanks are being used on sulphur bearing oils.



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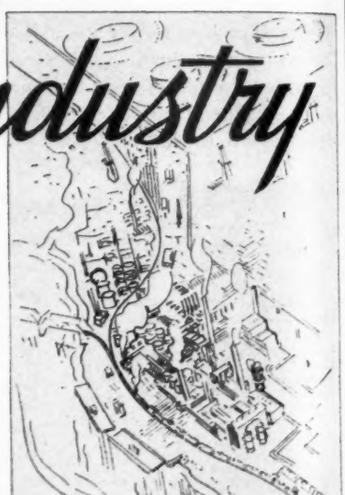

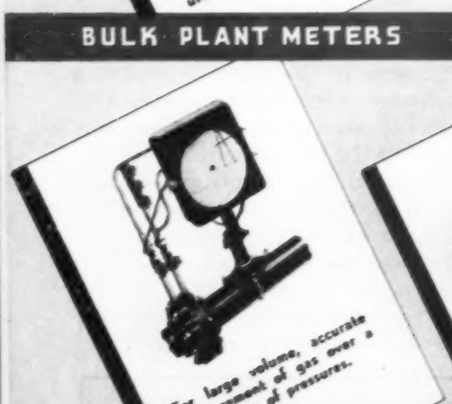

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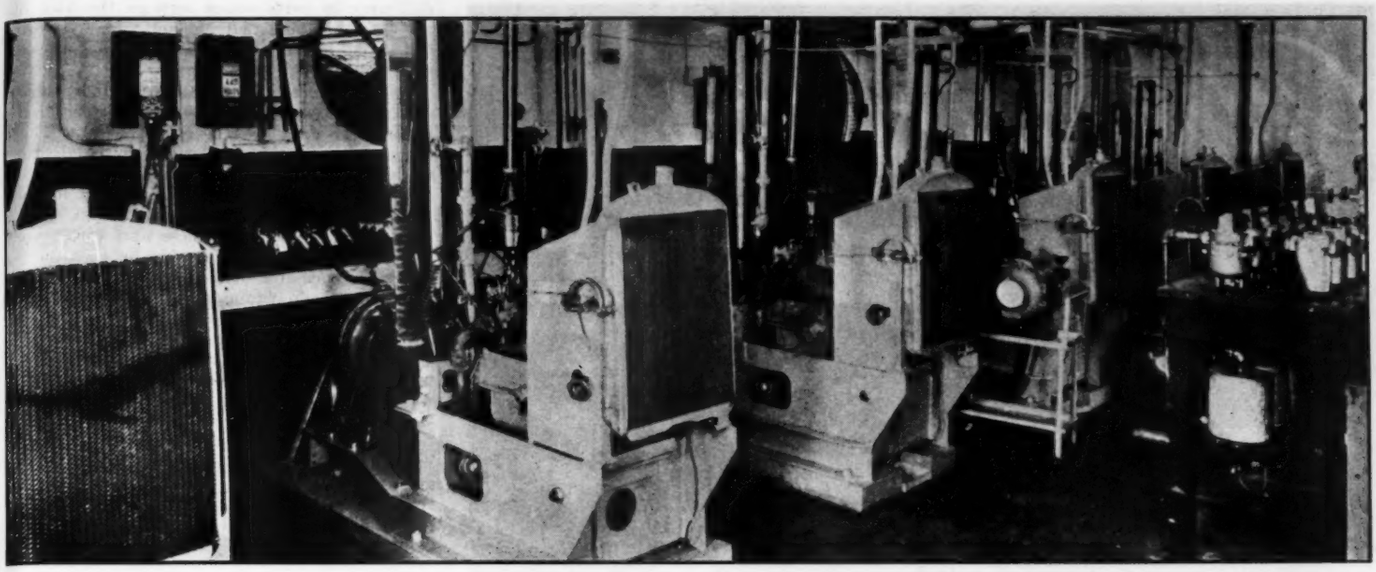


Front view of six motors in film strength laboratory test at the Atlantic Refining Company's plant in Philadelphia, Pa.

Improved Film Strength of Motor Oils Result of Atlantic Refining Research

By C. O. WILLSON

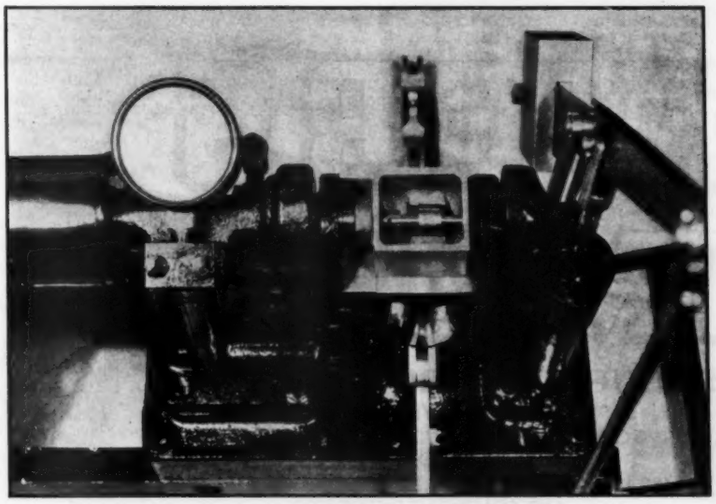
NEW YORK.—The importance of film strength as a property of motor oils was indicated here this week in a demonstration conducted by technologists of the Atlantic Refining Co. coupled with a report of a study made at the company's research and development laboratories located at its Philadelphia, Pa., refinery over a period of four years. The test data included new motor oils which the Atlantic has had on the market for several months involving the use of a chemical additive which accounts for the greater film strength. The latter property in non-technical terms is described as the "ability of oil to support load" and the service significance stressed in the local demonstration was the decreased wear on piston rings, cylinder walls and other lubricated parts of engines. A possible saving of $50,000,000 in repair bills to car owners in this country was suggested as a result of the use of oils having the greater film strength.

The Atlantic company several months ago completed the installation of a solvent plant using nitrobenzene refinery and the general properties of its lubricants have been improved including a higher viscosity index, lower carbon residue, improved sludging characteristics and other properties associated with the solvent refining of lubricants. It was made clear, however, that these improved plant processing methods had little or nothing to do with superior performance as regards film strength. The chemical compound used to increase the film strength was not disclosed. It was explained here that the Atlantic's technical organization has under way at this time a third phase of its investigation covering the performance of its improved oil.

In the demonstration here the Almen Machine for testing film strength which was developed by the General Motors Research Laboratories, was used. This machine which has been described in the literature consists of a motor driven journal and bearing immersed in a bath of oil. The journal is made from one-quarter inch diameter drill rod and the bearing is a 2½-inch long split bushing made from S.A.E. cold drawn steel. The journal is polished and the bushing after splitting is ground on the bearing surface with a form grinding wheel. A 0.0070-inch clearance is provided between the journal and the normal diameter of the bushing. The journal and bushing are mounted in an oil sample cup with a capacity of approximately 20 cc. The journal is driven through one end of the cup by means of a hard steel coupling with a cork gasket to retain the oil.

In the demonstration several brands of canned oil were tested. The oil to be tested was placed in a container surrounding the journal and bearing. After the journal was rotated at the rate of 200 revolutions per minute weights were applied to the scale pan on the end of the lever arm. This force is transmitted to a one-half inch piston which applies pressure through the hydraulic system against a 2-inch piston which in turn acts on the split bushing.

The results are reported in terms of the number of 2-pound weights supported by the oil without seizure. For example if an oil allowed seizure when 10 weights were on the pan, the result of the test would be nine weights supported. Each 2-pound weight is equivalent to approximately 1,000 pounds per square inch. It was pointed out that the Almen Machine does not test oil under operating motor conditions. It does not in itself prove or disprove the capabilities of an oil for preventing wear and tear on the metal parts of the motor which it lubricates. The only purpose of the test is to show the difference between oils in film strength.

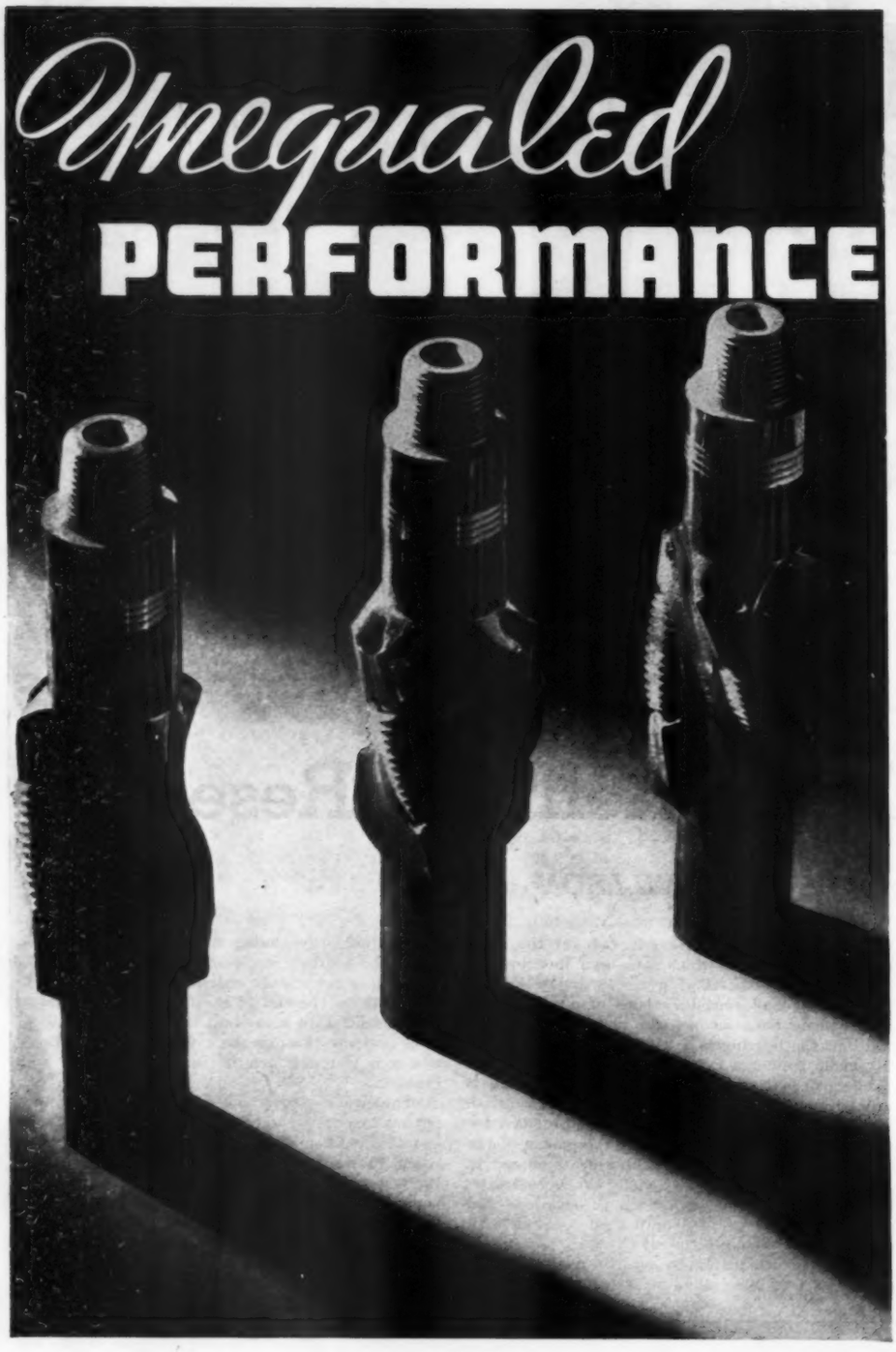


Oil cup shown in place on Almen machine

The tests of the various branded oils of varying S.A.E. numbers which did not have the chemical additive, showed that seizure took place when two to six weights were used representing pressure of from 2,000 to 6,000 pounds. In the case of Atlantic oils containing the compound regardless of viscosity no seizure took place after the 15 maximum weights were added.

These results were comparable with those made previously at the company's laboratory covering 3,653 samples of motor oil involving 154 grades. This exhibit showed that 34 leading brands were able to withstand pressure of 4,945 pounds per square inch with an average for the high film strength oils of 14,000 pounds.

The second test was conducted



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with the Atlantic's oils in order to determine the difference in performance between the high film test oils and those that did not contain the compound. A summarized report of this investigation follows:

Six 80 horsepower, eli-head six-cylinder engines were set up on stationary blocks in the Automotive Laboratory. Each was connected with a Taylor water dynamometer, for loading purposes. Three of the engines were run on an Atlantic S.A.E. 20 high film strength oil and three on an identical oil having no high film strength qualities.

The primary object of these tests was to show differences in actual engine wear between the two oils when compared under similar engine conditions. In order to obtain as nearly equal conditions as possible, the six engines and dynamometers were mounted in a row and alternate engines used for the high film strength and regular oils, in this manner eliminating the effect of any temperature gradients existing in the laboratory. The running conditions were chosen to simulate those found in severe road operation, with, of course, the exclusion of road dirt, and comprised the following operating cycle:

Engine blocks and crankcase were chilled to 20° F. by circulating cold Prestone (ethylene glycol) for one hour. Then the chilling medium was shut off and the engines started while cold, using full choke. As soon as the engines fired regularly the choke was reduced to three-fourths setting and the motors allowed to idle for half a minute, at which time the choke and throttle were opened wide, and the speed regulated to 3,000 r.p.m. (approximately 55 miles per hour), by means of loading the dynamometers. After running under these conditions for one hour, the engines were shut down and allowed to cool naturally for two hours, then chilled for one hour and the cycle repeated. In addition to the one-hour runs, one six-hour run was inserted every 24 hours.

Previous to starting operations the engines were taken apart and all moving parts, except the bearing shells, carefully micrometered. Realizing that the success of the test depended largely on the accuracy of the measurements, two specialists, not members of the laboratory staff, were obtained for this work and did all the measuring at the beginning, during, and at the end of the test. These men worked independently, one being checked against the other. They did not know which oil had been used in the engine being measured. After the initial measurements were completed, the engines were assembled and run the equivalent of 15,000 miles, when they were taken apart, examined for sludge formation and measured. The engines were then reassembled a second time, all parts being carefully replaced in their original locations. The engines were then run to the completion of the test, at which time a total of 100,000 miles had been put on the three engines using the regular oil.

Table 1 shows the summarized data for the most significant parts of the engines. It will be seen that the saving in wear is considerable, particularly on the rings. This improvement was also observed in decreased blow-by, which is a direct function of ring condition. Other parts of the engines measured before and after the tests showed such exceedingly small amounts of wear, that, while the trend was favorable, little significance was attached to these measurements, which included: Pistons, valves, crankshafts, cam shafts and wrist pins. It should be borne in mind that while every effort was made to operate these engines in such a manner as to duplicate road operation, it is a well known fact that the wear obtained on block tests is smaller that that obtained on the road. This, however, in no way minimizes the results obtained, for the tabulation shows the relative performance of the oils, the percentages being independent of the magnitude of the wear.

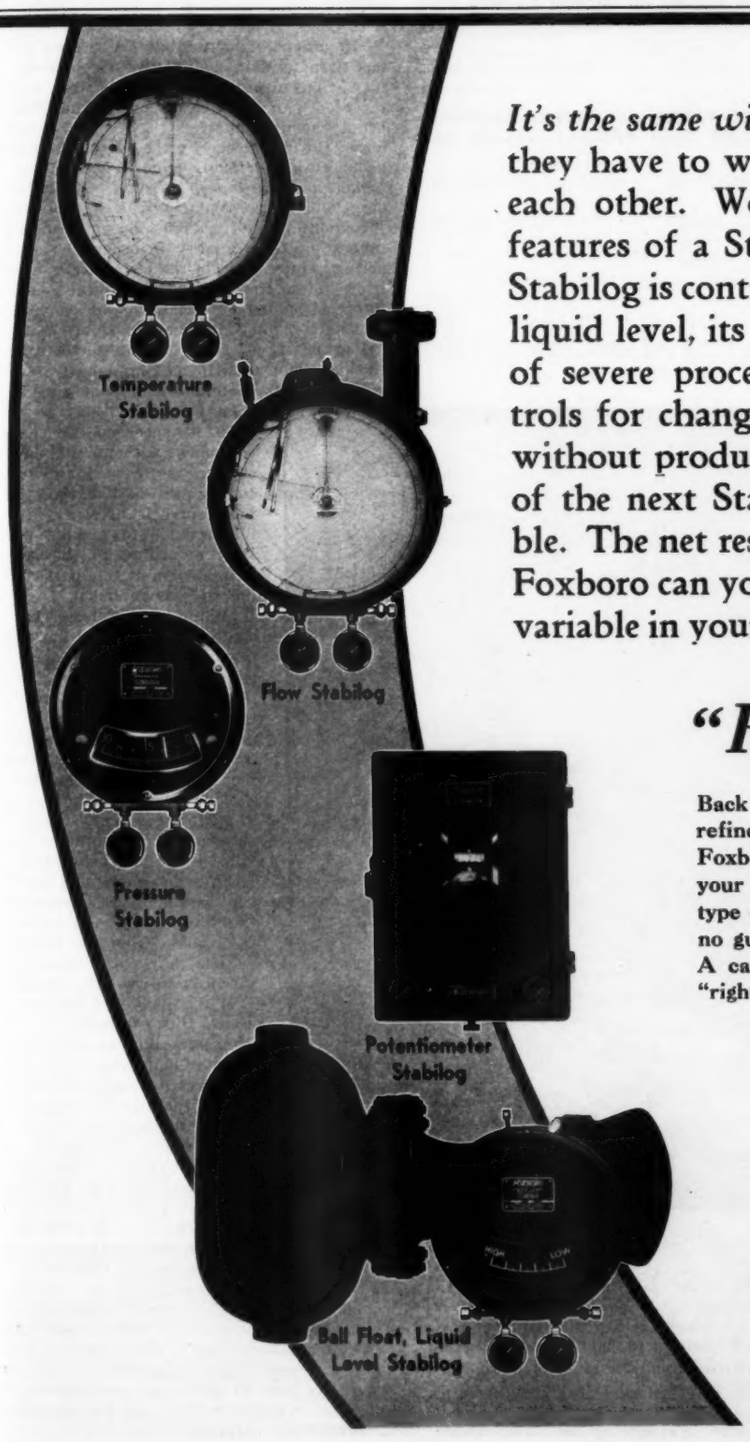
TABLE 1—EFFECT OF ATLANTIC HIGH FILM STRENGTH OIL ON ENGINE WEAR

Engine part—	Type of oil used— H.F.S.*	Regular	Per cent dec. in wear
Cylinder wear (¼" from top)	0.0012"	0.0018"	33.3
Top ring gap increase	0.0199	0.0440	54.7
Second ring gap increase ..	0.0062	0.0111	44.2
Third ring gap increase	0.0101	0.0159	36.5
Oil ring gap increase	0.0518	0.0684	24.3
Average ring gap increase..	0.0220	0.0348	40.0

*High film strength.

"...hang together or...*hang separately!*"

~Benjamin Franklin~



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Recent Developments in Manufacture of Steels for Oil Equipment

By
GORDON F. HESS
Republic Steel Corp.

The improvements in drilling methods and equipment which have made possible tapping oil accumulations which would have been impossible a few years ago, are scarcely short of revolutionary. The duty of oil field production equipment has never been easy, and with the development of improved technique has come a great increase in the depth of hole drilled so that 6,000 and 8,000-foot holes are now common.

The problem of developing equipment which would satisfy these demands, not only must be met by improved design, but also by improved materials—and here the steel company metallurgist must work hand in hand with the producer.

To the man on the drilling rig, all steel is "pig iron," and any failure in the field is given as proof of it. If he could become acquainted with the care and study which goes into the making of modern steel for his requirements, he would be amazed at the sensitiveness of the operations. Developments in steel metallurgy in the last five years have been equal to those made in the technique of oil production, although much less spectacular.

One of the outstanding contributions of the metallurgist has been the development of material for hard facing. Probably to no other one factor are we indebted more for our present ability to develop oil supplies at a satisfactory rate than to the hard facing of drill bits. Tungsten-carbide was developed as a material for cutting tools, and resulted in such an improvement over high speed steel that machine tools had to be redesigned to provide the necessary power to take care of the increase feeds and speeds possible. Much of the success of the application of hard facing materials has come from the development of a technique of application which has produced a satisfactory bond between the hard facing and the supporting steel cutter. This technique of application is extremely important if failures, due to overheated and brittle bits, are to be eliminated.

Oil field production equipment is characterized by two important requirements, first, the maximum possible toughness to reduce breakage under the severe service, and second, the maximum resistance to abrasion. Hardness is of the greatest importance, but any increase in hardness is usually accompanied by decrease in toughness and ductility.

For such parts as tool joints which must have the maximum possible toughness, together with sufficient hardness to commercially withstand the cutting of drilling mud circulating under high pressure, the selection of steel and its treatment is of primary importance. Here the stress concentrations may be very high, especially in deep holes and where the drill pipe is deflected due to crooked holes.

Among the developments of the steel maker which are of importance to the user of oil field equipment, is the production of uniform steels, having greatly increased toughness for a given hardness. This is done by controlling the physical condition of the steel and is more or less independent of the chemical specifications. By the same technique it is possible to produce steels which are much less sensitive to overheating.

By proper development and practice, alloy and special carbon steels are now being produced, which have greatly increased toughness at the highest hardness. As an example of what can be done, we show in the accompanying table Izod impact values for two steels of the same chemical composition but with different physical properties.

TABLE 1—EFFECT OF DEOXIDATION PRACTICE ON IZOD IMPACT VALUES OF MEDIUM CARBON STEEL

	C.%	Mn.%	McQuaid-Ehn grain size
Steel 1	.40	.85	Fine—shallow hardening
Steel 2	.40	.80	Coarse—deep hardening

TABLE 2—IZOD VALUES AND BRINELL HARDNESS—QUENCHED 1,500° F. IN WATER—1" DIA. RD. BARS

Steel No. 1—Shallow hardening type		
Draw	Izod	Brinell
600° F.	48 ft./lbs.	242
800° F.	62 ft./lbs.	234
1,000° F.	77 ft./lbs.	207
1,200° F.	98 ft./lbs.	190

Steel No. 2—Deep hardening type		
Draw	Izod	Brinell
600° F.	9.5 ft./lbs.	267
800° F.	10 0 ft./lbs.	234
1,000° F.	14.5 ft./lbs.	212
1,200° F.	32 5 ft./lbs.	184

Pouring special steel into ingots

These tables show the difficulty in using the chemical or Brinell hardness as a guide to selecting steels for parts subjected to very suddenly applied loads and what is probably more important when subjected to occasional stresses beyond the elastic limit of the part. Parts which must deflect through a given distance—such as drill pipe in a crooked hole—will set up sufficient stresses to force the part to bend to the shape required and these stresses will be greater in proportion to the rigidity and strength of the member being made to deflect. Thus, the larger the diameter and the stronger the material, the greater will be the stress in a drill pipe forced to conform to a given deflection. And these stresses will, of necessity, exceed the elastic limit in many cases so that in material of low notch resistance, the stresses will localize at a surface defect or tool mark and a crack occurs.

In order to insure that the proper processing has been used in making the steel, many special inspections are required in the steel mill before the steel can be released, and in addition to the usual chemical analysis, it becomes necessary to check the grain size by the McQuaid-Ehn test on as many as 18 ingots from a single heat and to make numerous transverse etch tests, impact tests, etc. This is particularly true of tool joint steel in which every effort must be made to obtain the highest uniform quality in order to meet the exacting requirements of the metallurgist whose duty it is to see that the best material possible goes into tool joints, etc., made by his company.

The recognition of the importance of the physical chemistry of steel making, as determined by the technique used in making a heat of steel, has been known for some time in the automotive field. Today no important part is specified for automotive equipment without full knowledge of service requirements of that particular part, so that the steel maker has found it necessary to change his practice in making a heat of steel according to the service requirements of the part for which the steel is intended.

While many tests have been made to determine what properties in steel contribute the most towards resistance to abrasion, very few tests have been run under conditions approximating the severity of those which exist in the oil fields. It has been developed, however, that one of the primary requisites for resisting abrasion is hardness. This is not always true, however, since the resistance to abrasion is also increased by increasing the carbide and nitride contents of the surface. The maximum resistance to wear therefore, would be obtained in parts made from the hardest steel possible, having a high content of carbon or nitrogen in the surface.

While it is not difficult to approach this condition in making a given part, the excessive brittleness which accompanies a high hardness, as well as a high nitride or carbide content, requires that some sacrifice be made of hardness, etc., to obtain a satisfactory ductility in a given part. Here again the technique used in making the steel and the heat treatment used is more important than chemistry and it becomes necessary to use the greatest of care, to obtain in the finished part, the maximum possible toughness or ductility in combination with maximum possible hardness. This shows up particularly well in case hardened parts such as are used in rotary drilling bits, etc., where we must be very careful to obtain steel which has been so made that the highest possible toughness, together with a very high hardness can be successfully obtained.

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Reversible Diesel Engine Successfully Drilling Associated Well in Ventura

A direct reversible Diesel engine is successfully meeting all demands of the Associated Oil Co. in drilling the company's Lloyd's well No. 136 in the Ventura Field of California. The engine is better described as a Cooper-Bessemer 400 H.P., 600 R.P.M., 8-cylinder direct reversible Diesel driving a rotary table and draw works through a 24-inch Twin Disc clutch, the entire assembly being mounted as a complete unit.

The clutch is built into the flywheel of the engine, and is operated by an air ram, controlled by a small lever by the driller, which lever is installed on the driller's post. A Thomas flexible coupling is located beyond the twin disc clutch, and beyond this there is an extended shaft, supported on both ends with self-aligning ball bearings. Mounted on the shaft is a standard sprocket driving the draw works shaft with a standard rotary chain. There are no intervening jack shafts or clutches between the engine and the draw works since the engine is direct reversing and the releasing of the jaw clutches is taken care of by reversing the engine itself. The unit is mounted on a steel sub base, with one end turned up to facilitate skidding into position.

To provide flexibility, especially during hoisting, hand operation instead of governor control has been installed. The one way clutch is operated by air, and the starting, accelerating and reversing are all done by the driller by means of a small control lever mounted on the driller's post. Air operation of the clutch is considered essential since it allows the driller to keep his right hand on the brake lever.

The compressed air is supplied by an electric motor-driven compressor, which, with tanks, are located immediately near the derrick under the pipe rack. Circulating water is furnished by a Fluor enclosed type cooling-tower, located on a hill about 150 feet from the pipe rack. Water pumps and oil pumps are driven separately by electric motors as it was desired to confine the operation of the Diesel engine to driving the draw works and rotary table. This permits study of the engine performance without interference from auxiliary equipment.

The average fuel consumption has been about one bbl. of oil per 24 hours. There has been one change of lubricating oil, requiring 50 gallons, which was made after drilling 6,000 feet. The fuel oil available is made from an asphaltic base crude and the operation of the engine was at first rather ragged. This was overcome by raising the compression of the engine.

Oil Pump

The lubricating oil pump is motor driven. A lubricating oil shutdown device was installed to insure constant lubrication. The arrangement provides for leakage past the piston, the oil being drained back into the engine crank case. Thus the main engine cannot be started unless the lubricating oil pump is first placed into operation.

A. E. Warren, drilling superintendent for the Associated at Ventura desired that all drillers and operators become familiar with the engine and its adaptability to oil well drilling. He has had nine crews work on the well since it was first started, on June 1st of this year. Many of the drillers were afraid of the friction clutch at first and insisted on using the jaw clutch entirely. After learning to handle the clutches, however, the operation was smooth.

It was soon found impossible to use a governor except as an overspeed device since drilling through steeply dipping rock formation becomes so rough that it is necessary for the power plant to cushion some of the action of the bit by being flexible in speed. A governor will not permit this and it is felt that a Diesel engine with governor control would damage the equipment when going through some kinds of formation. A fixed setting of the hand control has been found most satisfactory. If the speed drops after the bit grabs, a specially designed injection system, which is under a constant pressure, has a tendency to increase the power impulses. This permits the speed to fluctuate with the operation of the bit and yet prevents the prime mover from stalling.

During the hoisting it was found performance came with practice. The actual sequence in such operation was found to be somewhat as follows: Assuming a stand of drill pipe hanging on the hook ready to be hoisted, the engine is started with its friction clutch out, then with all jaw clutches out, the engine friction clutch is thrown in and out quickly by means of the air control lever. This starts the cathead shaft, and while this is rotating, but with the friction clutch out, the jaw clutch for the proper ratio is thrown out. The inertia of the cathead shaft, and chains on the drawworks, bring the teeth of the jaw clutch into engagement, and at practically the same instant the engine clutch is thrown in and the engine given increased speed.

With the hoisting operation in progress two methods of stopping the hook at any desired location has been used. One method is to cutoff the engine throttle just as the block reaches the desired point in the derrick and at the same instant apply the brake to the drum. The engine clutch is then thrown out, the engine reversed, and then started for an instant in the reverse direction, with the jaw clutch thrown out and the engine stopped, it is reversed to the head position and started again when desired. The other method is to throw out the engine clutch after the block reaches the desired point in the derrick without stopping the engine and at the same time catch the load with the brake.

Speed of Reversal

An outstanding feature of this Diesel operation as observed by the writer is the speed with which it can be reversed. In pulling a string of drill pipe, the driller on the job has become so accustomed to the performance of the engine that he will catch the recoil of the flywheel and throw the engine into reverse without applying the air.

The draw works being used for the drilling of this well is an old type Emsco without a jackshaft. It was intended to use this Direct-Reversible engine in connection with a more modern type draw works which are equipped with counter shaft which would provide for proper gear ratios for the engine. The main objection to the present installation is the high speed of the cathead which is caused by the inflexibility of the draw works.

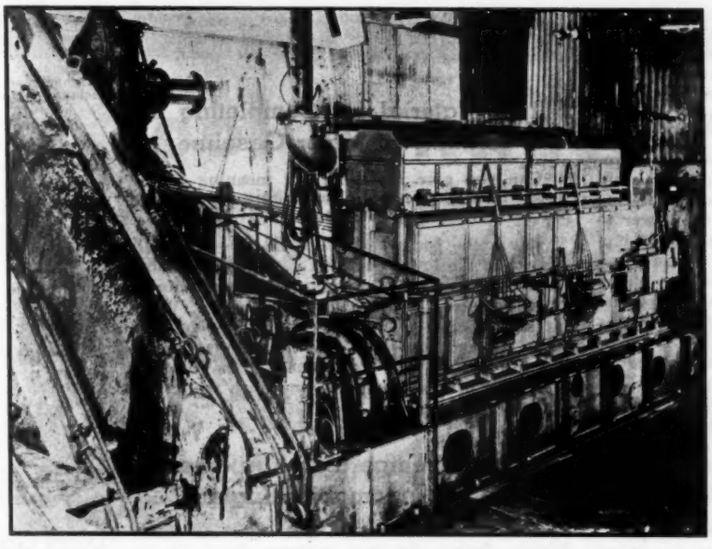
In considering the application of the Diesel engine for rotary drilling there are many factors that must be taken into account. Where water is a problem, both because of scarcity and the necessity of treating same, the steam engine offers many disadvantages. It is usually desirable to have FIVE boilers for the drilling of a deep well. Due consideration must be taken of the labor necessary to keep these boilers in service, as well as fuel necessary for their operation; cost of water, water treatment, maintenance, flue repairs and replacement, etc.

The electric motor is adaptable in many locations, but the power costs are often very high. Electric power is not always available.

The Diesel-generator installation of course provides power at the well but with that type of installation the engine must run at full speed all the time; this results in excessive fuel consumption and consistent wear on parts, wherens the direct-connected direct reversible Diesel type installation operates rather similar to an automobile power plant; by this we mean the engine speeds up in direct proportion to horsepower required by means of the hand throttle operated by the driller. During rotation the engine speed will range between 150 and 500 R.P.M.

The initial investment of all types of prime movers will naturally be an influential factor in deciding the kind to select. There are also fixed charges to be considered. In fact every factor entering into the cost of prime mover should be weighed for all types of installations that are possible under existing conditions. This particular type and size direct reversible Diesel engine is especially adaptable because of the particular fuel injection system, which is ideal for the reversing. It is felt that the speed of drilling secured by the installation in Ventura Avenue Field is at least equal to that attained with other prime movers in that district.

On the next well to be drilled by the Associated using this type of engine the company expects to use one of the latest type draw works.



Reversible Diesel on Associated Oil Co. well, Ventura Field, California

QUESTIONS ON TECHNOLOGY

By Charles K. Francis, Ph. D., Technical Editor

Those connected with the refining of crude petroleum, the manufacture of natural gasoline and closely allied industries are invited to submit problems to Dr. C. K. Francis. Questions should give as much detail as possible. Inquiries must be signed but only the given initials will be printed. The source of questions is considered confidential. Questions requiring discussion of patents, the use of intricate formulas, extended computations, or cost estimates cannot be considered in these columns.

Separation of Small Quantities of Oil From Water by Coke Filters

We understand that a type of filter is in use in Europe for the separation of small amounts of oil from water which operates on the principle of a sand pressure filter except that a filter bed of coke breeze is used, replaced as required to obtain an oil-free filtrate. These filters are in use at gas plants for the removal of oil from waste water to avoid contamination of rivers. We are interested in the details of the filter bed, its composition and fineness of the materials.—E. W. C.

The process of filtration is a straining operation commonly applied to liquids for the purpose of removing suspended materials. If a large proportion of the suspended substances are exceedingly small it will be necessary to supply some filtering medium with fine enough openings, pores, or cells, to prevent the passage of these materials. Solids are used in what are called granular bed filters; the best known type being the sand filter. This kind of filter is constructed by first placing a foundation of rocks and pebbles, smaller granules are filled in above this, gradually reducing the size until the bed is finally finished with sand. Fine material from the liquid is deposited above this to form the true filtering medium.

Frequently, filtering may be assisted by the addition of some material to the liquid, anything used in this way is called a filter aid. There are numerous filter aids, including such substances as certain chemicals, special earths, sawdust, paper pulp, fine charcoal and coke. A filter aid should be insoluble in the liquid and have no tendency to impart an odor or taste.

Both charcoal and coke are extremely resistant to chemical action and their fine cellular structure make these materials suitable for use as filtering mediums and filter aids. Coke has the power to attract globules of oil through adsorption, so if a mixture of water contains a relatively small proportion of oil it is possible to extract the oil by the use of pure coke. The ordinary petroleum coke would probably not be satisfactory for this purpose, because some particles are oily, the high grade 72 hour metallurgical coke being preferable.

The construction of the filter bed when separating oil from water is made as for a sand filter except that coke is used in place of stone and sand, the size being reduced in a similar way and the pulverized coke added to the liquid mixture. When the filter has become saturated the coke is withdrawn and used for fuel.

This use of coke appears to offer some possibilities for the removal of the last traces of oil from refinery wastes, after the larger part of the oil has been recovered from a separator.

French Customs Specifications for Motor Essence or Gasoline

Does the French government have a particular standard for the classification of gasoline similar to our specifications for gasoline, such as for U. S. Motor Gasoline? If you have any information about this we would appreciate the details—W. S. D.

The French Customs Code, as announced in the Journal Official, defines the several petroleum products. There are two grades of essence (gasoline) shown.

"Essence.—Products distilling at least 15 per cent by volume before 100° C. (212° F.) and at least 95 per cent before 215° C. (419° F.), including loss, using the standard method (Engler).

"'Essence tourisme' is considered to be a limpid and neutral spirit, not containing sulphur compounds detectable by the sodium plumbite and sulphur test, not liable to form any sediment, and fulfilling the following conditions, based on the test of distillation by the standard method (Engler): (1) At least 30 per cent by volume before 100° C. and at least 95 per cent before 185° C. (365° F.), including loss; (2) the final boiling point must not exceed 205° C. (401° F.). Residue must not exceed 2 per cent and must remain liquid at the temperature of 15° C.

Fill Is Material for Completing the Volatility of Motor Gasoline

Can you give me the exact meaning of the word "fill" when used in describing the refining process for making gasoline?—A. H. E.

Fill is the portion of the hydrocarbons distilling within the lower part of the gasoline fraction. These are not especially volatile but yet suitable for easy starting of the gasoline engine. Without this fraction the gasoline would be deficient at the 10 and 20 per cent points on distillation. Material of this type is obtained in the refinery from the gas recovery plants and from the cracking stills.

Maximum Temperatures Attained in Oil of Automobile Engine

How hot does the oil get in a car when driving during the hot summer days? It is supposed that the engine is in good condition and the oil is of the proper quality.—T. H. A.

The oil temperature is mentioned in many articles relating to automobile operation and the quality of lubricating oils. It will probably be sufficient to refer to an article by C. T. Doman, which appeared in The Oil and Gas Journal, March 31, 1932, page 95. This was a description of test runs made with lubricating oils ranging from No. 30 S.A.E. to No. 60 S.A.E.

This investigation indicated that the low viscosity oils lubricate at lower temperatures than high viscosity oils under same conditions of load and rate of speed. A test in which a S.A.E. 60 oil was used and firing the engine under a normal load at 3,000 r.p.m., the maximum cylinder temperature was 400° F., and the oil temperature in the main bearing was 288° F.

The maximum oil temperature on the road on a hot day with S.A.E. 40 oil, in either an air-cooled or water-cooled engine should not exceed 235° F.

Gasolines That Are Obtained from Heavy Smackover Crude Oil

Could you furnish me with some desired information about the type of gasoline obtained from Smackover, Ark., crude oil of about 20 gravity? Is the gasoline derived by skimming suitable for motor fuel? How does it compare with gasoline obtained by cracking?—M. P. C.

Crude oil from Smackover of about 20° A.P.I. gravity is graded as heavy oil. Such oil very seldom contains very much, if any, of the most volatile gasoline as is represented by a low initial boiling point, below 100° F., and a 10 per cent point around 150° to 160° F. The practice is for the refiner to improve such gasoline by the addition of natural gasoline or by blending with cracked gasoline in order to make a motor fuel which will have a satisfactory volatility range. Without a good volatility over the lower part, initial and 10 per cent, a gasoline does not possess good starting qualities. These important factors may be explained by analyses of straightrun, cracked and finished gasolines from Smackover heavy crude.

STRAIGHTRUN AND CRACKED GASOLINE FROM SMACKOVER HEAVY OIL

	Straightrun	Cracked
Gravity A.P.I.	47.0	55.4
Initial B.P.	164° F.	114° F.
Per cent		
10	238	179
50	320	293
90	381	386
Endpoint	420	422
Sulphur, per cent	0.047	0.120
Octane number	74	63

The cracked product appears to be volatile enough to be used as a motor fuel during the summer months, although liable to give poor starting on a cool morning. The straightrun, according to the analysis, is not a suitable product for use as a motor fuel.

Both of these products were finished by the addition of natural gasoline. The quality of the gasolines is shown in the table.

SMACKOVER S.R. AND CRACKED GASOLINES WITH NATURAL GASOLINE

	S.R. and natural	Cracked and natural
Gravity A.P.I.	59.5	59.4
Initial B.P.	96° F.	100° F
Per cent		
10	114	157
50	254	276
90	369	380
Endpoint	416	420
Octane number	70	61
Sulphur, per cent	0.035	0.096

Daily Gasoline Consumption Per Car and Lub-Gasoline Ratio

Do you have any recent figures showing the gallons of gasoline consumed, per day, per car? What is the relation in per cent of the lubricating oil used in motor vehicles to gasoline?—L. M. B.

Data showing car registrations and gasoline consumption suggest that the number of motor vehicles in the United States is now about 26,000,000 and the daily average consumption of gasoline close to 47,200,000 gallons. This indicates a daily consumption of gasoline at the rate of approximately 1.8 gallons per car registered. The large number of vehicles in storage and those being held for resale is the reason for this low gallonage.

According to the announcement made of an investigation by the American Petroleum Institute the percentage of oil to gasoline motor fuel is 3.39 per cent in passenger cars, 2.78 per cent in trucks and 1.73 per cent in buses. This survey was conducted chiefly among fleet owners.

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"18. A method of testing the productivity of a formation encountered in a well containing drilling fluid involving the insertion of only a single string of pipe into the well to make a test, which includes lowering a test string into the well through the drilling fluid with a packer carried by the string and a valve inlet at the lower end of the string closed against the entrance of fluid from the well, setting the packer above the formation and opening the valve to permit cognate fluid from the formation to enter the inlet, closing the valve to prevent the subsequent entrance of fluid from the well through the inlet and releasing the packer, and raising the test string with the inlet closed against the entrance of fluid from the well to remove an entrapped sample."

(One of a number of claims in the Halliburton Formation Testing Patent held valid and infringed by the United States District Court for the Eastern District of Texas on September 5th, 1935 in a suit against Johnson Formation Testing Corporation.)

HALLIBURTON OIL WELL CEMENTING CO.
DUNCAN, OKLAHOMA

PROBLEMS FROM READERS

Edited by T. F. Smiley

Fresh Water Is Likely to Preclude Possibility of Encountering Oil

We have encountered two excellent shows of oil in fresh water horizons in one of our wells here in Florida, one at 1,300 feet and the other at 1,900, and we are going to try hard to make a well at both depths a little later. Differences of opinion are expressed as to whether it is possible to get commercial production in fresh-water horizons, although I believe there are fields producing under such conditions. Any information you can provide on this question will be appreciated.—W. G. B.

Your question is not wholly clear as you do not define your understanding of "fresh water." If you mean meteroic or rain water, it must be said that no available information indicates there are fields of commercial importance where this kind of water accompanies the oil.

Such fields of necessity would be very shallow, and being shallow the effect of hydrostatic pressure on the producing formation would be small. It is doubtful if waters entering the outcrop of such shallow formations would aid in producing the oil. Also in formations outcropping nearby it is unlikely oil and gas would be found in place. They probably would migrate up-dip and escape.

Fields where water drives are of consequence produce connate waters, that is, waters that have been trapped in the formation for a long time. These waters contain solids that have been dissolved out of the formations and mark them as other than fresh water.

In your state it seems probable that any sign of fresh water precludes possibility of finding oil or gas in the same formation. This is due to the general character of the formations and the likelihood that they outcrop on either the land or in the adjacent ocean or gulf and offer opportunity for either fresh or salt water to enter.

If the water encountered is fresh it is reasonable to assume that it is replaced frequently and is flowing underground, and under such conditions oil would be displaced and washed out of the formation if it ever accumulated.

There are other factors entering into this problem that would seem to eliminate the possibility of finding oil in formations containing fresh water in areas adjacent to the ocean or gulf.

How Explosives Act in Seismograph Work and Special Kinds Needed

I wish you would explain for me just how explosives are used in seismograph operations. Do special kinds have to be used, or is ordinary powder or dynamite satisfactory? What under-surface performance by these explosives is sought by the operator of the instrument and what is it that he makes a record of?—R. N. D.

To begin with, the seismograph operation involves creation of earth vibrations by means of high explosives, usually loaded in relatively deep water-tamped holes, and recording the time of travel and the character of these vibrations by instruments placed at varying distances from the shot point. To meet the specific requirements of this work special explosives and electric blasting caps have been developed.

An explosive recommended for geophysical prospecting is a 60 per cent ammonia gelatin, which contains a relatively high amount of ammonium nitrate, is water-resistant to a high degree and has strength and velocity characteristics. Three different gradations of 60 per cent gelatin have been developed for seismograph work. One is a gelatin dynamite for use under unusually severe loading conditions. Another is a firm gelatin suited to the usual type of seismograph work. The third is a very plastic and cohesive grade designed for operations which demand a product of this type.

The explosives referred to fulfill the normal geophysical requirements. Occasionally, however, shots are made in water-filled holes 200 feet or more in depth. For such use there is a high-velocity explosive which has the ability to detonate at full strength under water pressures. The four types of gelatins described possess almost identical explosive properties in speed and strength.

In the usual types of work requiring electric blasting caps, a detonator serves only one purpose, that of initiating the explosive charge in which it is embedded. The cap is not required to satisfy any precise limitations as to speed or uniformity of detonation. In establishing the time versus distance values in seismograph exploration work, however, the exact instant of the explosion must be known, and the speed and uniformity of detonation of the electric blasting cap play an important part.

Readers are invited to send questions relating to drilling, producing and transporting operations. These questions will be placed in the hands of persons capable of answering them authoritatively. The names of those writing for information will be considered confidential, initials only being published. This department cannot undertake to answer questions involving patents or intricate formulas or those which properly should be submitted to consulting engineers or geologists.

WHY THEY CALLED IT *Bridge*

A bridge as the driller knows it may be accidental or planned. In the former case it is any accumulation plugging the well hole. Sometimes, to perform work in the upper part of the hole, a bridge is constructed by inserting small branches of trees, then rocks, sand and finally cement. This makes it unnecessary to disturb the hole below that point. Such bridges are so called because, like the familiar structures over rivers, etc., they form a span across an open space. Of interest in this connection is the fact that a Roman aqueduct over the River Gard, in France, built 2,000 years ago, is so well preserved that it is being used now as a main highway for the handling of automobile traffic.

Radioactive Methods of Prospecting Present Important Possibilities

In answering a question as to how deep geophysical methods are applicable to finding oil you referred to the radioactive method. I should like to know how a radioactive method is used. Also I should like to know what methods are used in determining the radioactive content of materials taken from the ground, chemical analysis or ionization properties, or both—C. A. B.

Available literature on radioactive methods of prospecting is extremely limited. The following, which comes the nearest to providing the information you seek, is taken from Dr. C. A. Heiland's "Geophysical Methods of Prospecting":

"The applicability of radioactive measurements in prospecting is based upon the fact that there is usually an enrichment of radioactive substances in zones of faulting due to a facilitated circulation of active air and waters. In addition there is a possibility of using radioactive methods in conjunction with investigations of well samples in order to ascertain whether or not an oil horizon has been passed unnoticed. This is because petroleum may freely absorb radium emanation (radon). Hence an oil-bearing sand would manifest itself by its increased activity.

"There are a number of possibilities in the way of radioactive prospecting. One way is to take samples of the ground at certain intervals and investigate their radioactivity either by chemical analysis or by the use of an ionization chamber. A second possibility is to drive holes into the ground, to seal them and let them alone for a certain length of time. Then an electrometer is attached to the top of the hole and the activity of the soil-air is measured, the hole serving as an ionization chamber. A third way is to go over the ground at intervals with an ionization chamber, the bottom of which has been removed, and to measure the radioactivity in the usual manner by the electroscope, which is attached to the top of the chamber. This chamber is a square box, the inside of which is equipped with tinfoil connected to the casing of the electroscope. The insulated rod of the electroscope is extended and suspended in the center of the box. This diffusion rod is negatively charged and the relative radioactivity at each station is determined by measuring the time required for the electroscope to discharge. The time is shorter the stronger the radioactive radiation is; that is, the more conductive the air in the chamber becomes under its influence. A fourth possibility is to measure only the penetrating radiation of the ground. This is a radiation of the nature of X rays or of gamma rays emitted by radium, only usually much harder (shorter in wave length). This radiation is measured with an electroscope attached to an ionization chamber which is completely shielded by heavy lead plates except for a small opening on the bottom which may be screened by lead filters of varying thickness. By using different filters the absorption and wave length of the recorded radiation may be determined. A fifth method which is mostly used nowadays in radioactive prospecting is using an instrument in which a pipe is lowered into a hole drilled in the surface of the ground. The soil-air, which contains larger or smaller quantities of radium emanation, is then pumped out of the hole with an air pump and pressed into the ionization chamber to which the electroscope is attached.

"Radioactive methods of prospecting have to my knowledge not been used in this country. Very good results have been obtained in European countries, especially Russia and Germany, with this method in mining by locating fault lines and mineral dikes under thin covers of alluvium."

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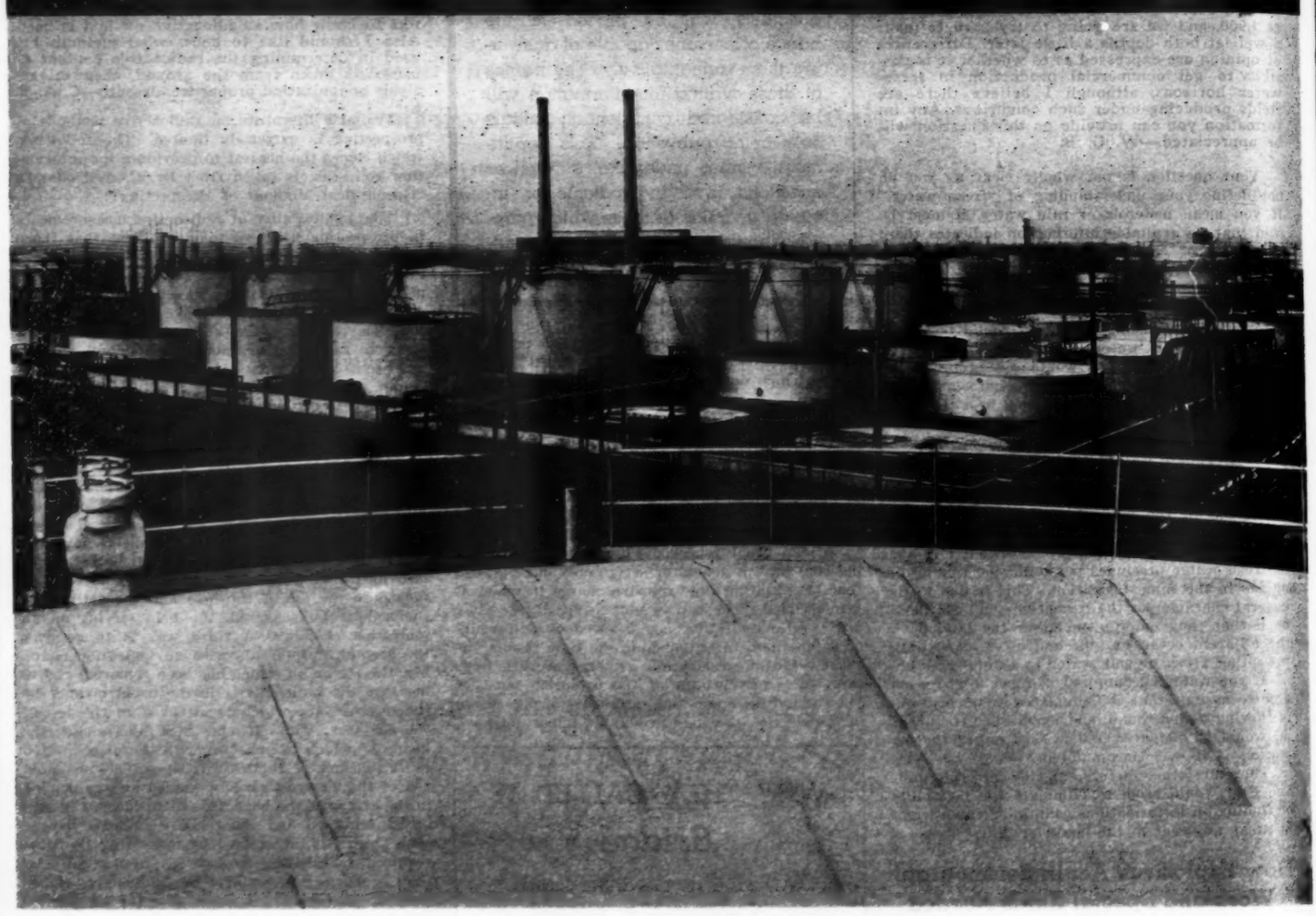

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West and North Texas

TWENTY-ONE TESTS LOCATED IN THE WEST TEXAS DISTRICT

By L. E. BREDBERG

FORT WORTH, Tex., Sept. 16.—Twenty-one locations were staked in the West Texas district during the week while 18 tests were completed, the majority in various producing areas although three wildcats and one semi-wildcat were abandoned. Crane, Culberson and Reagan County each had a "duster", and an outpost test south of the Cowden Field in Ector County was a failure. This test, Atlantic Oil Producing Co.'s No. 1 T. P. Land Trust, in the northwest quarter of Section 11, Block 43, Township 1s, T. & P. Survey, was abandoned after plugging back from total depth of 4,391 feet to 4,255 feet and shot with 380 quarts from 4,175-4,300 feet and treated with 3,000 gallons of acid. It is a south offset to a producer in the adjacent section held under lease by Sun Oil Co. Atlantic also has a dry hole in the southwest quarter, same section, Section 11. These two dry holes apparently define the southern limits of the Cowden Field although Eppenauer Drilling Co. and Continental Oil Co.'s No. 1 Wight, in the northeast quarter of Section 22, Block 43, 2 miles south and a little west of this Atlantic failure, flowed 75 bbls. of oil per day after shooting and cleaning out. A 650 quart shot was used. Total depth is 4,260 feet. This well apparently extends the Cowden Field west and south.

Sun Oil Co. and Atlantic Oil Producing Co.'s No. 1-B Holt, southwest quarter of Section 5, Block 43, Township 1n, T. & P. Survey, 2½ miles northwest extension to the Cowden Field, appears a defining well making only 33 bbls. of fluid in 24 hours at a total depth of 4,350 feet, sufficiently deep for production but looking good for only a small well, and no doubt producing some water with the oil if completed for a producer. The water will probably be plugged off or an effort made to plug it off and the test given a shot or acidized before completing.

York and Harper have staked location for an interesting test northeast of the Addis Field, in the southeast quarter of Section 13, Block 43, Township 2s, T. & P. Survey. It is approximately 2 miles northeast of production. It is on the H. C. Foster lands and standard tools have been moved in.

Andrews County

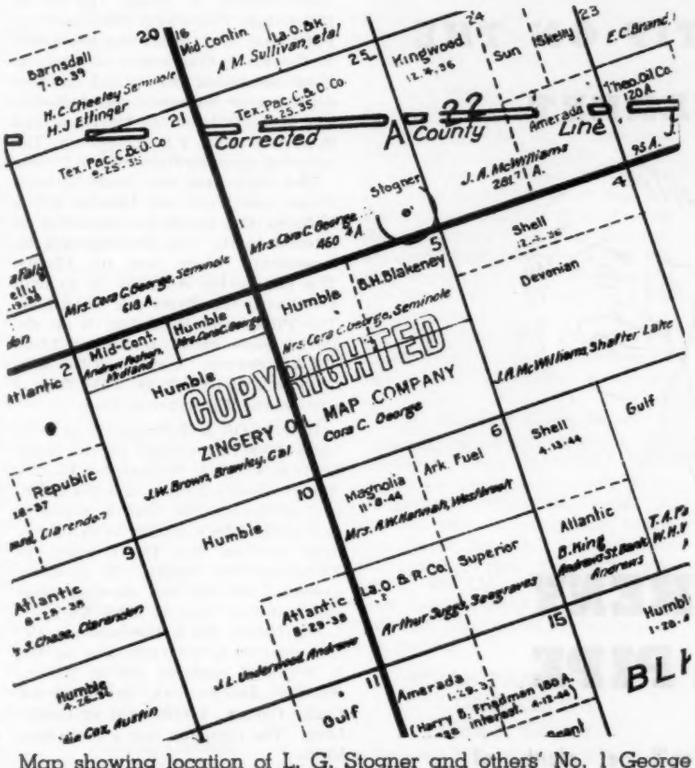
L. G. Stogner and others' No. 1 George, southeast corner of Section 25, Block A-22, P.S.L. Survey, Andrews County, 6 miles northwest of the Means Field, and near the Gaines County line, created considerable interest when it encountered an estimated 500,000 feet of gas at 3,070 feet, a rainbow showing of oil at 3,090 feet and an increase of gas at 3,150 feet. It is drilling below 3,240 feet unchanged, but correlation of other higher markers and striking the gas higher than it is found in the Means wells southeast has heightened interest.

Tripplehorn's No. 1 Ogden, southwest quarter of Section 6, Block A-46, west of a producer in the Ogden Pool, appears the best producer drilled in the Ogden Pool, the first producing area of Andrews County. It is shut down at 4,410 feet after plugging back from 4,440 feet and is making 390 bbls. of oil in 24 hours. Other producers in this pool were of such little consequence pipe line companies refused to lay a line to the pool until during the past year when Humble Pipe Line Co. laid a line from Ector County to tie into the Fuhrman or Ford area; thence to the Ogden area and northeast to the Means Field in which Humble Oil and Refining Co. is producing eight wells.

Gulf Production Co. is rigging up rotary for a second test on its block on the Kelly Ranch in Block A-38, northwest corner of Andrews County. The first test, southeast corner of Section 2, was abandoned at 1,770 feet after running low on upper markers. The second test, southwest quarter of Section 10, 2¾ miles southwest of the first, may prove of greater interest and may be carried deeper.

Sand Hills Area

The Sand Hills area, extreme western part of Crane County, opened five years ago by Gulf Production Co. and Cranfill Brothers, now has three producers although the last two tests drilled have not yet been completed. The latest addition, American Liberty Oil Co. and Cranfill Brothers' No. 1 Tubbs, SW quarter Section 11, Block B-27, P.S.L. Survey, about 1¾ miles southeast of the discovery, was given an 80-quart shot from 4,288 feet to 4,307 feet and swabbed and flowed 55 bbls. of oil in 24 hours while cleaning out. Total depth is 4,318 feet. Elevation is 2,536 feet.



Map showing location of L. G. Stogner and others' No. 1 George (Texas Pacific Coal & Oil Co.) wildcat in northern Andrews County

Gulf Production Co. is still working on No. 1 McKnight, Section 9, Block B-21, north of the discovery, in an effort to make a better producer. Total depth is 3,713 feet but it has been plugged back to 3,582 feet where it pumped 57 bbls. of water and no oil in 10 hours, then was reported pumping 135 bbls. of oil and 70 bbls. of water in 24 hours. It has been making a large amount of water, which the company has not been successful in shutting off.

The southwestern Crane County wildcat of Dobbs Oil Co. on the Jax Cowden ranch, in Section 38, Block 1, H.&T.C. Survey, has been abandoned at a total depth of 2,343 feet. Elevation is 2,320 feet.

Gaines County Wildcat

Wahlenmaier Petroleum Corp. and others have staked location for an extreme wildcat 23 miles northwest of Seminole in Gaines County, on the E. H. Jones lands in Section 414, Block G, C.C.S.D.&R.G.N.G. Survey.

Ward County Wildcat

A new wildcat is to be started in Ward County by Tex-Mex Petroleum Co. on the Lancaster estate lands, 294 feet north, 20 degrees and 15 minutes west of the NE cor. Section 61, Block 8, H.&G.N. Survey, Pecos County, 5½ miles down the Pecos River from the northwest corner of Pecos and the east corner of Reeves County.

The semiwildcat test of West Texas Oil & Royalty Co. on University lands, Section 6, Block 16, south of the O'Brien Field, Ward County, has been completed as a small well, making only 71 bbls. of oil and 5 bbls. of water per day. Total depth was 2,668 feet, but it was plugged back to 2,567 feet in a futile effort to shut off bottom hole water. Pay was topped at 2,476 feet. This is south of a producer drilled by the company, and although a small well proves more producing acreage.

Reagan County Failure

Culberson and Irvin's No. 1 Ringo, located in Section 1, Block H, L.& S.V. Survey, north of Big Lake Field, has been abandoned at a total depth of 3,430 feet in lime. Elevation is 2,657 feet.

Howe-Halley Trend

The most interesting information furnished by any test drilling along the trend from the Howe area south through the town of Kermit and south to the Halley area, flanking the Hendricks Field about 2 to 3½ miles to the east, was the striking of oil in Humble Oil & Refining Co.'s No. 2 J. B. Walton in the SW cor. Section 48, Block 26, P.S.L. Survey. It was given a 300-quart shot from 2,800 to 3,100 feet in the sandy lime pay horizon and started flowing at the rate of 400 bbls. per day before cleaning out. It is between producers on the Brown and Altman lands south of Kermit and producers which extended the Hendricks Field to the east, drilled a number of years ago. There are no dry holes between the two areas, consequently linking of the old Hendricks Field and the new sandy lime producing trend which parallels it, appears certain in places along the trend. However, the areas are not expected to be tied all along the trend for one dry hole, drilled in the western half of Section 37, the

adjacent section north of Section 48 in which the Humble well is located, has a dry hole drilled during the past few months.

Deal in Winkler County

Showers and Moncrief and Crafton Oil Co. of Fort Worth, acquired operating control of Pure Oil Co.'s 1,440-acre block on the Walton Ranch in eastern Winkler County, and have staked two locations: No. 1 Pure-Walton, is in Section 2, Block B-3, a west offset to Richardson's No. 1 Walton, one of the discovery wells of the Walton Pool. The second test is in the northwest quarter of Section 1, Block B-3, same section as the Richardson-Walton discovery well. Richardson acquired his acreage from Pure Oil Co.

Emperor Oil Co.'s No. 1 Halley, southeast corner of Section 12, Block 12-B, 3 miles north of the Skelly-Halley discovery, and on a direct line to the Brown and Altman production south of Kermit, has proved a producer and one of the probable connecting links on the Howe-Halley trend in Winkler County. It was shut down at a total depth of 2,886 feet, making 50 bbls. per day and will no doubt prove much better. Weaver and others' No. 1 Tobe Morton, Section 11, Block 12-B, about 1 mile west, adds to the belief the entire trend will produce. This test has been flowing by heads making around 70 bbls. per day after plugging back to 2,937 feet from total depth of 2,948 feet.

Wilgo Oil Corp.'s No. 1 Campbell, Section 2, Block 5, 3 miles east of Kermit, has plugged back from total depth of 4,639 feet to 4,630 feet and is pulling casing. Elevation is 2,884 feet. This is an old hole abandoned several years ago.

Two of Gulf Production Co. tests on its Keystone Block in eastern Winkler County are exceptionally deep. No. 8 Keystone, Section 13, Block 2-B, has cored to 4,000 feet and No. 9, 1 mile due south of No. 8, in Section 18, Block 2-B, is shut down at 4,126 feet. They are south and east of the other seven producers drilled by the company, and may limit the pool on this side.

Harry Adams and others' No. 1 Gulf-Bray, an outpost test in Section 14, Block 5, H.&T.C. Survey, Ward County, struck sulphur water at 2,630 feet and is shut down 12 feet in the water where it will probably be abandoned, limiting the southern Ward County area in this direction.

Kimble County

Another Ordovician test is to be started in Kimble County with Wilcox Oil & Gas Co. now drilling such a test on the Mrs. James Paterson Ranch in the western part of the county. The new test, on a 30,000-acre block purchased from J. D. Collett of Fort Worth by Forest Development Corp., Bradford, Pa., is to be drilled on the L. D. Stapp lands in the southeastern part of the county. It will be in Section 682, John E. Wells Survey, about 22 miles east and little south of Junction. It will go to 4,000 feet. Richmond Drilling Co. will drill it.

RANGER AND WICHITA FALLS

Two deals, one involving a deep test and acreage in eastern Shackelford County and the other properties and production in Young County are reported. The Young County deal was consummated by Mudge Oil Co. of Pittsburgh, Pa., which purchased the Fultz and Kay producing properties in the Knox Pool north of Graham. Four producing wells and another drilling near the sand, were included. The property is on the Harrison land in Section 3407, T.E.&L. Survey. The reported consideration was $220,000.

The other deal was made between Pitzer and West and Humble Oil & Refining Co., the latter acquiring an interest in the two Breckenridge independents' block east of Albany. The purchasing company is to drill a test near the Pitzer and West hole. The Pitzer and West test is on the De La Fosse ranch, in Section 1,549, T.E.&L. Survey. It swabbed 300 bbls. of high gravity oil at 4,454 feet, 1 foot in the Ellenburger lime.

Humble Oil & Refining Co. is drilling a 4,500-foot wildcat on the Knox lands in Block 1, Washington County Survey, Young County, 2 miles northeast of Loving, the first deep test in this area. The company is drilling a deep test on the Davis lands in Throckmorton County. It is down around 5,500 feet and showing some salt water in lime at 5,405 feet.

Big Indian Oil & Development Co. has spudded a 4,000-foot test on the J. S. Floyd lands in the E. Barnes Survey, Abstract 43, in northeast Cooke County, 1 mile east of Callisburg. The company has a 6,000-acre block.

Production in the Wichita Falls district averaged 63,100 bbls. per day during the week, production in this district having increased slightly during the past few weeks.

Harry Hines of Wichita Falls has staked location for a wildcat, 4 miles south of the Farris and Fikes discovery well on the Jennings ranch in northern Jones County, on the J. M. McNair farm in the SW cor. Section 3, Mary Lawson Survey No. 5. Considerable drilling is taking place around the Jennings shallow discovery, which is producing from the King sand.

There were 36 tests completed in the Wichita Falls district during the week, 10 dry. Texas Co.'s No. 9 Les K. Johnson, in the Johnson Pool of western Foard County, was completed at a total depth of 3,620 feet, making an initial production of 182 bbls. of oil and 80 bbls. of water per day. Pay was topped at 3,613 feet. Gravity of the oil is the highest in the district and the heavy volume of gas has a high gasoline content.

WEST CENTRAL TEXAS (Ranger) COMPLETIONS

Brown County

Sher-Ritt Oil Co.'s No. 2-B Leatherwood, total depth 1,217 feet, plugged back to 1,202 feet, initial production 12 bbls.; No. 5-A Densman, total depth 1,185 feet, no production; No. 1 Stewart, total depth 1,813 feet, initial production 30 bbls. Anderson and Yarbo's No. 1 Ingram, dry and abandoned at 730 feet. Evans and others' No. 1 Haynes, dry and abandoned at 925 feet. Petroleum Oil Interests' No. 1 Counts, dry and abandoned at 666 feet; No. 1 Taylor, dry and abandoned at 2,030 feet. Vanbibber and others' No. 1 Sevalt, total depth 940 feet, plugged back to 460 feet, initial production 200,000 feet of gas.

Callahan County

Anderson's No. 1 Finley, dry and abandoned at 765 feet. Beams and others' No. 3-C Jackson, dry and abandoned at 1,092 feet. John Byram's No. 1 Jackson, dry and abandoned at 1,310 feet. Gillette and Perkins' No. 1 Harwell, dry and abandoned at 810 feet. Henderson and others' No. 1 Hickman, dry and abandoned at 616 feet. Humble Oil & Refining Co.'s No. 1-A Williams, dry and abandoned at 1,375 feet; No. 1-B Williams, dry and abandoned at 1,357 feet. Witmer Property Trustee's No. 3 Williams, total depth 332 feet, initial production 2 bbls. per day.

Eastland County

Girk Oil & Gas Co.'s No. 1 Gowan, total depth 2,878 feet, initial production 80 bbls. Moore and others' No. 1 Connellee, dry and abandoned at 1,931 feet. Griffin and others' No. 1 Ray, total depth 1,311 feet, initial production 7 bbls. of oil and 33 bbls. of water. Jake Hammon, Jr.'s No. 1 Goen, total depth 3,642 feet, plugged back to 3,520 feet, initial production 1 bbl.

Shackelford County

Callahan's No. 2 Davis, dry and abandoned at 2,010 feet. Charter Oil Co.'s No. 3 Mims, total depth 596 feet, initial production 30 bbls. Choate and McCamey's No. 3 Simpson and others, dry and abandoned at 1,625 feet. Conklin and Strawn's No. 1 Baker, dry and abandoned at 2,015 feet. Dean and Atkisson's No. 6 Newell, total depth 1,436 feet, plugged back to 1,434 feet, initial production 125 bbls. per day. Dickey Brothers' No. 2 Walker, total depth 411 feet, plugged back to 409 feet, initial production 6 bbls. Goodloe and others' No. 1 Davis, dry and abandoned at 1,361 feet. Givin and others' No. 1 Dennis, dry and abandoned at 590 feet. Hart and others' No. 1 Elliott, total depth 783 feet, initial production 5 bbls.; No. 2 Elliott, dry and abandoned at 893 feet. Hoffman and Page's No. 14 Morris and Buie, total depth 1,605 feet, initial production 8 bbls. Humble Oil & Refining Co.'s No. 1 Nail estate, total depth 1,550 feet, initial production 17 bbls. of oil and 2 bbls. of water. Jordon and others' No. 1 Davis, dry and abandoned at 1,276 feet. Letwin and Lip-

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pitt's No. 1 Davis, dry and abandoned at 1,807 feet. Moore and others' No. 1 Thorpe, dry and abandoned at 505 feet. Price's No. 1 Grimes, dry and abandoned at 1,219 feet.

Reliance Oil & Royalty Co.'s No. 6 Davis, total depth 1,624 feet, initial production 40 bbls.; No. 9 Davis, total depth 1,599 feet, initial production 17 bbls.; No. 4 Diller, total depth 515 feet, initial production 10 bbls.; No. 5 Diller, dry and abandoned at 525 feet. Roeser and Pendleton's No. 15-88-A Cooke, dry and abandoned at 1,171 feet; No. 16-88-A Cooke, total depth 1,066 feet, initial production 3,000,000 feet of gas; No. 58-A Cooke, total depth 1,277 feet, initial production 100 bbls.; No. 59-A Cooke, total depth 1,373 feet, initial production 150 bbls.; No. 2-205 Morris and Buie, total depth 1,590 feet, initial production 18 bbls. Root and Rhodes' No. 2 Smith (McKelvey), dry and abandoned at 852 feet. Tannehill and others' No. 24 Matthews, total depth 1,102 feet, initial production 5 bbls. Walker's No. 2 Davis, dry and abandoned at 510 feet. Worth Petroleum Co.'s No. 4 Jeter, total depth 967 feet, initial production 15 bbls.; No. 6 Jeter, total depth 951 feet, plugged back to 912 feet, initial production 10 bbls.

Throckmorton County

Bearman Oil Co.'s No. 4 Ledbetter, dry and abandoned at 790 feet. Holder's No. 1 Titus, dry and abandoned at 851 feet. Rogers and others' No. 1 McKeichen, dry and abandoned at 660 feet.

WICHITA FALLS (North Texas) COMPLETIONS

Archer County

L. T. Burns' No. 1 G. A. Lauster and others, total depth 1,190 feet, dry and abandoned. Cato Brothers' No. 2 J. H. Turbeville, top pay 1,015 feet, total depth 1,018 feet, initial production 2 bbls. per day. Harry Hines and others' No. 1 Archer County, total depth 1,034 feet, dry and abandoned. Huggins Oil Co.'s No. 6 Ford, top pay 990 feet, total depth 1,000 feet, initial production 15 bbls. per day. Maxson and Panhandle's No. 39-B F. C. Green, top pay 1,085 feet, total depth 1,095½ feet, plugged back to 1,091 feet, initial production 4 bbls. per day pumping. Panhandle Refining Co.'s No. 9-F H. O. Prideaux, top pay 679 feet, total depth 686 feet, initial production 2 bbls. per day. Rathke Oil Co.'s No. 1 L. F. Wilson estate, top pay 600 feet, total depth 619 feet, initial production 5 bbls. oil with show water per day; No. 5 L. F. Wilson, total depth 610 feet, dry and abandoned. Shappell Oil Co.'s No. 1 J. H. Turbeville, total depth 1,052 feet, dry and abandoned. Wichita Production Co.'s No. 1 W. D. Pace, top pay 1,277 feet, total depth 1,296 feet, initial production 20 bbls. oil and 8 bbls. of water daily.

Baylor County

Consolidated and Petroleum Producers' No. 24-D Portwood, top pay 1,337 feet, total depth 1,365 feet, initial production 750 bbls. per day flowing and swabbing. Duncan and others' No. 1 G. Schramm, total depth 1,658 feet, dry and abandoned. Petroleum Producers' No. 6-H Portwood, top pay 1,329 feet, total depth 1,365 feet, initial production 250 bbls. per day; No. 7-H Portwood, top pay 1,348 feet, total depth 1,362 feet, initial production 450 bbls. per day flowing and swabbing; No. 8-H Portwood, top pay 1,334 feet, total depth 1,368 feet, initial production 525 bbls. oil first seven hours flowing and swabbing. Ray and Staniforth's No. 13-C Portwood, top pay 1,339 feet, total depth 1,352 feet, initial production 650 bbls. per day flowing and swabbing; No. 14-C Portwood, top pay 1,340½ feet, total depth 1,355 feet, initial production 1,000 bbls. per day flowing and swabbing.

Clay County

R. J. Brown and others' No. 1 B. T. Gault, total depth 475 feet, dry and abandoned. W. C. Chapman and others' No. 1 C. J. Shumake, total depth 1,404 feet, dry and abandoned. Metzner and Burns' No. 11 Thornberry, total depth 337 feet, dry and abandoned.

Cooke County

Bridwell Oil Co.'s No. 1 J. Fisher, total depth 1,622 feet, dry and abandoned. Fain-McGaha Oil Corp.'s No. 5 J. W. Chaffin, total depth 1,087 feet, dry and abandoned. Hudspeth-Harvey and Bass' No. 2 F. J. Trubenback, top pay 860 feet, total depth 895 feet, initial production 165 bbls. per day. F. W. Merrick Drilling Co., Inc.'s No. 3 J. Hess, top pay 867 feet, total depth 898 feet, initial production 50 bbls. per day; No. 10-B A. Knabe, top pay 792 feet, total depth 810 feet, initial production 377 bbls. per day.

Foard County

Texas Co.'s No. 9 Les. K. Johnson and McAdams, top pay 3,613 feet, total depth 3,620 feet, initial production 182 bbls. of oil and 80 bbls. of water per day.

Jack County

G. A. Erikson and others' No. 1 W. E. Hunts, top pay 501 feet, total depth 505 feet, initial production 3 bbls. per day.

Wichita County

Boardman Brothers' No. 3 J. L. Jackson, top pay 697 feet, total depth 699 feet, initial production 25 bbls. per day. Coleman and Coppock's No. 25 Kemp and Kempner, top pay 770 feet, total depth 860 feet, plugged back to 775 feet, initial production 5 bbls. per day. Douglas Brothers and Johns' No. 7-B Waggoner estate, top pay 875 feet, total depth 900 feet, initial production 10 bbls. per day. W. B. Omohundro and others' No. 3 W. L. Hodges, top pay 1,647 feet, total depth 1,655 feet, initial production 20 bbls. per day. H. Rugeley's No. 4 Waggoner estate, top pay 1,098 feet, total depth 1,108 feet, initial production 110 bbls. per day. Texas Co.'s No. 70 W. B. Honaker, top pay 1,045 feet, total depth 1,058 feet, initial production 25 bbls. per day.

Young County

Clara Mae Douglas' No. 8 Finch, top pay 645 feet, total depth 653 feet, initial production 40 bbls. per day. Fresno Oil Co.'s No. 5 J. M. Kirkland, total depth 855 feet, dry and abandoned. Mook-Texas Oil Co.'s No. 1 W. S. Cole and others, total depth 808 feet, dry and abandoned.

WEST TEXAS COMPLETIONS

Crane County

Dobbs Oil Co.'s No. 1 Jax Cowden, dry and abandoned at 2,343 feet, elevation 2,320 feet.

Ector County

Atlantic Oil Producing Co.'s No. 1 T. P. Land Trust, dry and abandoned at 4,391 feet, plugged back to 4,255 feet. Amerada Petroleum Corp.'s No. 5-B Skelly-University, total depth 3,597 feet, initial production 319 bbls., top pay 3,500-10 feet; shot. Gulf Production Co.'s No. 7-B Connell, top pay 3,510 feet, total depth 3,695 feet, initial production 440 bbls.

Culberson County

Aero Gas & Refining Co.'s No. 1 fee, temporarily abandoned 2,137 feet, elevation 4,351 feet.

Howard County

Iron Mountain Oil Co.'s No. 5 Read, top pay 2,560 feet, total depth 2,767 feet, initial production 394 bbls. per day, pumping, shot; No. 7 Read, top pay 2,594 feet, total depth 2,774 feet, shot, initial production 566 bbls.

Jones County

N. H. Martin & Sons' No. 1 King, total depth 1,986 feet, initial production 70 bbls. per day.

Pecos County

Marathon Oil Co.'s No. 8-D Yates, top pay 1,104 feet, total depth 1,180 feet, initial production 200 bbls. per hour.

Reagan County

Culberson and Irwin's No. 1 Ringo, dry and abandoned at 3,430 feet, elevation 2,657 feet.

Upton County

Texas Pacific Coal & Oil Co.'s No. 17-A Lane, top pay 1,975 feet, total depth 2,025 feet, initial production 531 bbls. per day, pumping.

Ward County

California Co.'s No. 18 York, top pay 2,256 feet, total depth 2,534 feet, initial production 566 bbls. Skelly Oil Co.'s No. 1 Citizens National Bank, total depth 2,680 feet, top pay 2,426 feet, shot, initial production 85 bbls. Thompson's No. 3-B Johnson, total depth 2,522 feet, shot twice, initial production 1,684 bbls. per day. West Texas Oil & Royalty Co.'s No. 1-C University, top pay 2,467 feet, total depth 2,668 feet, plugged back to 2,567 feet, initial production 71 bbls. of oil and 5 bbls. of water per day.

Winkler County

Fox and Butler's No. 2 Brown and Altman, top pay 3,098 feet, total depth 3,195 feet, plugged back to 3,180 feet, shot, initial production 625 bbls. per day. Mid-Continent Petroleum Corp.'s No. 3-A J. F. Howe, total depth 3,018 feet, shot, initial production 802 bbls. Sayre's No. 5-B Howe, top pay 2,835 feet, total depth 2,998 feet, shot, initial production 720 bbls. per day.

TEXAS PANHANDLE COMPLETIONS

Carson County

Texoma Natural Gas Co.'s No. 2 Mineral Interests Co., top pay 2,492 feet, total depth 2,780 feet, initial production 10,975,000 feet gas.

Gray County

Abilene Oil Co.'s No. 5 Webb, top pay 2,560 feet, total depth 2,580 feet, acidized, initial production 230 bbls. pumping. Danciger Oil & Refining Co.'s No. 5 Byrum, total depth 3,315 feet, plugged back to 3,267 feet, shot, initial production 358 bbls. pumping. Gulf Production Co.'s No. 9-A Worley, top pay 2,841 feet, total depth 2,940 feet, initial production 318 bbls. pumping. Hoffman Oil Co.'s No. 8 Finley, top pay 2,950 feet, total depth 3,058 feet, shot, initial production 486 bbls. pumping. Sinclair Prairie Oil Co.'s No. 2 Smith, top pay 3,435 feet, total depth 3,279 feet, shot, initial production 692 bbls. pumping. Stanolind Oil & Gas Co.'s No. 7-B Cobb, top pay 3,233 feet, total depth 3,330 feet, shot, initial production 586 bbls. pumping; No. 4 Wagoner, top pay 3,174 feet, total depth 3,291 feet, shot, initial production 617 bbls. pumping. Texas Co.'s No. 7 Harrah, top pay 3,150 feet, total depth 3,252 feet, shot, initial production 390 bbls. pumping.

Hutchinson County

Barnsdall Oil Co.'s No. 1 Lewis, top pay 3,895 feet, total depth 3,008 feet, shot, initial production 712 bbls. pumping. International Petroleum Co.'s No. 14 Lewis-Badger, top pay 2,935 feet, total depth 3,004 feet, shot, initial production 600 bbls. pumping. Martex Oil Co.'s No. 1 Pitcher, top pay 3,123 feet, total depth 3,190 feet, shot, initial production 425 bbls. pumping. Phillips Petroleum Co.'s No. 1 Eagle, total depth 3,001 feet, plugged back to 2,525 feet, shot, initial production 9,474,000 feet gas. Skelly Oil Co.'s No. 1 Jameson, top pay 2,830 feet, total depth 2,868 feet, shot, initial production 588 bbls. pumping.

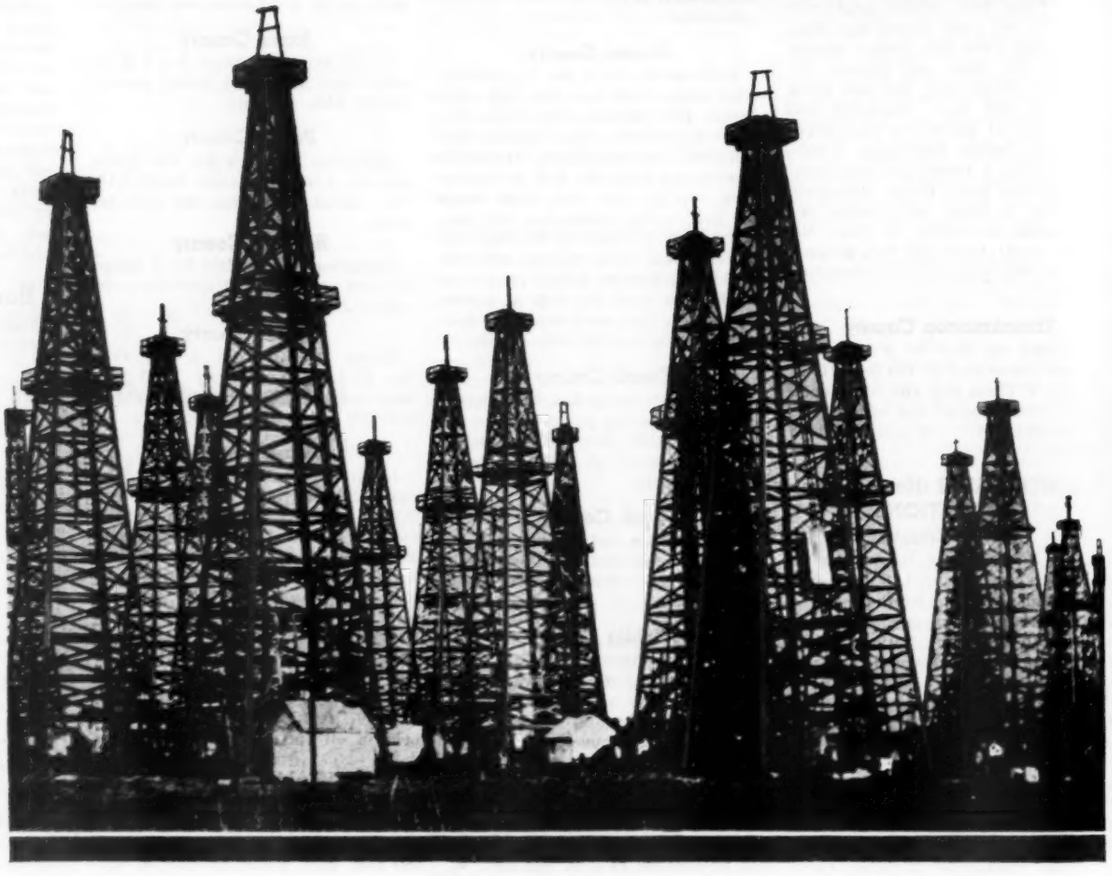
Rocky Mountain Runs

Production estimates for week ended September 14:

	Bbls.
WYOMING	
Salt Creek	16,940
Big Muddy	1,550
Badger Basin	40
Black Mountain	300
Byron	760
Dallas Derby	570
Dutton Creek	80
Elk Basin	610
Ferris	20
Frannie	550
Garland	840
Grass Creek	2,490
Greybull	10
Hamilton Dome	1,390
Hudson	300
LaBarge	1,350
Lance Creek	1,780
Lost Soldier	1,100
Mule Creek	shut in
Midway	50
Oregon Basin	3,100
Osage	600
Pilot Butte	30
Rex Lake	shut in
Rock River	1,500
South Casper	520
Poison Spider	210
Teapot	20
Waugh Dome	200
Total Wyoming	36,910
MONTANA	
Buckley-Border	260
Cat Creek	870
Cut Bank	6,590
Dry Creek	510
Kevin-Sunburst	3,950
Lake Basin	50
Pondera	1,180
Total Montana	13,410
COLORADO	
Florence	280
Fort Collins and Wellington	350
Iles Dome	2,920
Moffat	440
Orchard	70
Rangely	80
Tow Creek	190
Total Colorado	4,330
NEW MEXICO	
Artesia	640
Cooper area	7,900
Eunice area	9,570
Hobbs	29,980
Hogback	200
Hospah	shut in
Jal	4,180
Lea area	1,250
Maljamar	1,920
Monument	410
Rattlesnake	650
Table Mesa	80
Total New Mexico	56,780
Total Rocky Mountain region	111,430

T. Reiber, chairman of the board of the Texas Corporation at New York, made an inspection tour of the company's properties on the Gulf Coast during the past week.

The Secret



200,000,000,000,000,000,000 molecules in ONE drop

Clear, simple liquid though it appears, one typical drop of gasoline contains hundreds of *different* compounds amongst its *two hundred billion billion* molecules. Consider that if the earth were divided into that many equal parts, each cube would be less than six feet on a side. Or to measure the figure another way, two hundred billion billion pennies would give every man, woman and child on earth a billion dollars!

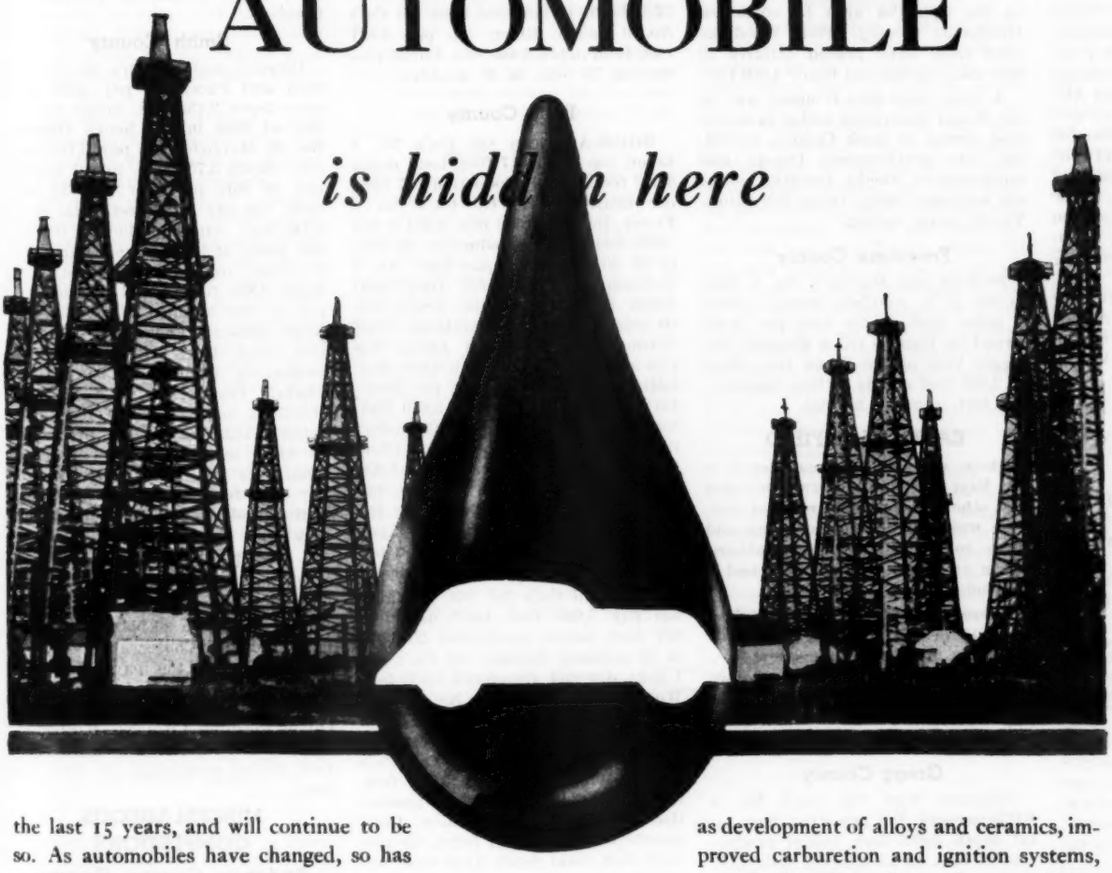
Let's stop thinking of motor fuel as a simple thing, and remember that changing only one molecule in every thousand of its total can change the character of the whole. Then the future of oil and automotive research—the future of motor fuel—the future of automobiles—is rich with exciting possibilities.

What fuel tomorrow?

Five years from now the supply of crude petroleum may be plentiful. It may not. It is certain that the price will be influenced by the supply. Also that the kind of molecules which are included in each drop of motor fuel will be dependent on the availability—and consequently the price—of crude.

Whatever the cost of tomorrow's motor fuel, it will undoubtedly be the aim of the petroleum industry: ***To provide the greatest amount of available power per dollar.*** This has been the object of fuel research for

# of Tomorrow's AUTOMOBILE is hidden here



the last 15 years, and will continue to be so. As automobiles have changed, so has gasoline changed . . . and vice versa.

Also, the idea of the automobile designer has been—and certainly will continue to be—to provide engines which give the motoring public the performance it wants at the lowest cost—both initially and during operation.

What engines tomorrow?

To develop the maximum results from the fuels of tomorrow may require supercharging, higher compression ratios, or a combination of the two. Both means of producing greater power and efficiency from gasoline require cooperative research of a fundamental nature . . . as well as development of alloys and ceramics, improved carburetion and ignition systems, and similar adaptations of motor design to fuel characteristics.

It is obvious that the future progress of the automotive and the oil industries is inseparably linked by the character of the molecules which are present in drops of gasoline.

It is the object of the research laboratories of the Ethyl Gasoline Corporation to aid, whenever possible, the mutual progress of the oil and the automotive industries. We invite your cooperation in any research problem which even remotely concerns the relation of fuel characteristics to engine performance. Ethyl Gasoline Corporation, Chrysler Building, New York City.

East and East Central Texas

By
L. E. BREDBERG

NORTHEASTERN TEXAS PLAY IS STIMULATED BY RODESSA

DALLAS, Tex., Sept. 16.—Interest in the East Texas district has shifted to the northeastern counties and the eastern tier of counties bordering on Louisiana because of the Rodessa play.

Locations for wildcats totaled eight, two in Grayson and two in Collin County. Port Boliver Oil & Refining Co. staked location for No. 1-A Elvire Dunning in the William Creager Survey, 2 miles southeast of Van Alystine in Collin County and has derrick up. It also staked location for No. 1 J. Shirley in the J. Sorrel Survey, 4 miles southeast of Anna, and is drilling below 1,725 feet. The seme company also staked a location and has derrick up in Grayson County, on the Creed Taylor farm, 2½ miles southeast of Gunter.

Dodd and others have a derrick up for a wildcat 2 miles southeast of Rockwall in Rockwall County, on the M. F. Lofland farm in the W. H. Beird Survey.

Navarro County

A test drilling below 1,050 feet in Navarro County is being put down by E. M. Thomason on the T. P. Shivers farm in the W. R. Bowen Survey, 2 miles south of Corsicana.

Beasley and others have moved in a machine for a wildcat 3½ miles northeast of Ennis in Ellis County, on the Mrs. Erie Roller farm in the Ruigoso Irrigation Co. Survey.

Angelina County got a new location this week and also had a dry hole. The dry hole was drilled by Howze Oil Co. on the Finley farm in the Bluford Mitchell Survey, 7 miles northeast of Lufkin. Total depth was 2,010 feet with an elevation of 278 feet. The new location is on the Carter Lumber Co. lands in the H.T.&B. Survey, 6 miles south of Huntington. C. L. Dupuy is drilling it and is below 50 feet.

Thomas D. Humphrey, of Longview has moved in heavy rotary drilling equipment for a deep wildcat on the Frank Robertson farm in the J. B. Goy Survey in Upshur County. D. L. Perkins of Shreveport worked the geology on the block.

Tide Water and Texas Seaboard's No. 1 H. B. Keeling, in the Simon Sanchez Survey, one-half mile east of Tucker and between an outpost gas producer of Hunt Production Co. and the main part of the Long Lake Field, and south of the companies' latest producer, is appearing dry at a total depth of 5,425 feet. It may be plugged back and a gasser salvaged from it.

The companies' No. 3 Goode, in the F. Smith Survey, to the south of the Cayuga Field, is being abandoned at 4,043 feet, marking the southern limits of the Cayuga Field. It showed salt water with but little dead oil.

Tide Water and Texas Seaboard's No. 21-A Wills, Trinity sand test in the S. Edmondson Survey, Cayuga Field, is drilling below 9,100 feet after testing salt water. It is the deepest test in the East Texas district. McElreath and Suggett of Fort Worth have recently sold the deep rights to a considerable acreage under leases in the Opkelika area in northwest Henderson County. Five Woodbine sand tests have proved failures in this area, the deepest below 4,900 feet.

A large lease play is under way in the Mount Enterprise sector in southeast corner of Rusk County, extending into southwestern Panola and northwestern Shelby County. Leases are evidently being taken for future Trinity sand testing.

Freestone County

Stewart and Watson's No. 1 Ball, in the J. Y. Aguilera Survey, about 3 miles east of the two gas wells owned by Daniels Oil & Royalty Co., logged base of the Pecan Gap chalk at 3,390 feet and is drilling below 3,800 feet, running normal.

EAST TEXAS FIELD

There were 45 tests completed in the East Texas Field, two dry and the others requiring artificial lift. Five were placed on the pump and three were completed as swabbers. Gregg and Rusk County each had a dry hole.

There were 49 locations staked. Only 15 of the 45 wells were completed by major companies.

The field is not to be shut down to take potential tests of all wells, but potential tests will be dicussed at the next hearing of the commission.

Gregg County

Arkansas Fuel Oil Co.'s No. 3 Killingsworth, top pay 3,611 feet, total depth 3,618 feet, initial production 21 bbls. in 15 minutes; No. 13-C Lathrop, top pay 3,529 feet, total depth 3,553 feet, initial production 22 bbls. in 15 minutes; No. 7-B Smith, top pay 3,499 feet, total depth 3,522 feet, initial production 19 bbls. in 15 minutes. Dyck Oil Co.'s No. 11 Christian, top pay 3,576 feet, total depth 3,601 feet, initial production 17 bbls. in 15 minutes. Empire Gas & Fuel Co.'s No. 15 Bander, top pay 3,547 feet, total depth 3,596 feet, initial production 30 bbls. in 15 minutes. Mabee's No. 7 Whitehurst, top pay 3,647 feet, total depth 3,648 feet, initial production 65 bbls. per hour. Port Bolivar Oil Co.'s No. 1 Irion, total depth 3,665 feet, dry and abandoned. Great States Oil Co.'s No. 1-A Still, top pay 3,514 feet, total depth 3,540 feet, initial production 22 bbls. in 10 hours pumping.

Gulf Production Co.'s No. 4 Longley, top pay 3,657 feet, total depth 3,665 feet, initial production 12 bbls. per hour. Shelburne's No. 6-A Walker, top pay 3,561 feet, total depth 3,563 feet, initial production 20 bbls. in 20 minutes; No. 7-A Walker, top pay 3,563 feet, total depth 3,565 feet, initial production 60 bbls. per hour. Sinclair Prairie Oil Co.'s No. 7 Thomas, top pay 3,720 feet, total depth 3,722 feet, initial production 27 bbls. in 15 minutes. Utex Oil Co.'s No. 9 Sabine River, top pay 3,427 feet, total depth 3,460 feet, initial production 75 bbls. in 30 minutes.

Rusk County

British-American Oil Co.'s No. 4 Ector, top pay 3,617 feet, total depth 3,635 feet, initial production 107 bbls. per hour. Burwin Oil Co.'s No. 6 Florey, top pay 3,666 feet, total depth 3,669 feet, initial production 40 bbls. in 30 minutes. Champlin-Bass' No. 5 Robeson, top pay 3,585 feet, total depth 3,617 feet, initial production 90 bbls. in 10 hours, swabbing. Gulf Production Co.'s No. 6 Baton, top pay 3,580 feet, total depth 3,688 feet, initial production 60 bbls. per hour; No. 15 Jernigan, top pay 3,689 feet, total depth 3,702 feet, initial production 85 bbls. per hour; No. 8 Oten, top pay 3,556 feet, total depth 3,656 feet, initial production 20 bbls. per hour, swabbing. Humble Oil & Refining Co.'s No. 7 Barton, top pay 3,630 feet, total depth 3,720 feet, initial production 60 bbls. per hour.

Hurtle Oil Co.'s No. 7-B Williams, top pay 3,623 feet, total depth 3,627 feet, initial production 25 bbls. in 30 minutes. Renwar Oil Co.'s No. 1 Butt, dry and abandoned 3,560 feet. Woodley Petroleum Co.'s No. 5 Peterson, top pay 3,645 feet, total depth 3,661 feet, initial production 80 bbls. per hour. Arkansas Fuel Oil Co.'s No. 13 Wheelis, top pay 3,673 feet, total depth 3,698 feet, initial production 17 bbls. in 15 minutes. Dowlearn's No. 1 Slaughter heirs, top pay 3,615 feet, total depth 3,616 feet, initial production 5 bbls. in 10 minutes. Elm Oil Co.'s No. 5 Eaton, top pay 3,738 feet, total depth 3,755 feet, initial production 90 bbls. per hour.

Fisher's No. 10-B Eaton, top pay 3,710 feet, total depth 3,775 feet, initial production 80 bbls. per hour. Gulf Production Co.'s No. 11 Thrash, top pay 3,685 feet, total depth 3,695 feet, initial production 52 bbls. per hour through three-quarters inch choke. Jones' No. 2 Frederick, top pay 3,553 feet, total depth 3,565 feet, initial production 20 bbls. in three hours, pumping. Marathon Oil Co.'s No. 33 Moore, top pay 3,668 feet, total depth 3,755 feet, initial production 60 bbls. per hour. Perry and Storey's No. 1 Wooley, top pay 3,569 feet, total depth 3,593 feet, initial production 20 bbls. in two hours, pumping. Phillips and others' No. 1, top pay 3,625 feet, total depth 3,657 feet, initial production 100 bbls. per day. Texas-Canadian Oil Co.'s No. 1 Gilstrap, top pay 3,600 feet, total depth 3,676 feet, initial production 6 bbls. per hour, pumping; No. 1 Herring, top pay 3,538 feet, total depth 3,588 feet, initial production 6 bbls. per hour, pumping. Ward Oil Co.'s No. 32 Thrash, top pay 3,719 feet, total depth 3,750 feet, initial production 42 bbls. per hour.

Smith County

Genecov and Roosth's No. 4 Bateman and Pace, top pay 3,751 feet, total depth 3,752 feet, initial production 64 bbls. in two hours. Hinton's No. 10 Mayfield, top pay 3,764 feet, total depth 3,765 feet, initial production 30 bbls. per hour; No. 12 Mayfield, top pay 3,782 feet, total depth 3,783 feet, initial production 60 bbls. per hour. McKinney and Barr's No. 3 Green, top pay 3,808 feet, total depth 3,809 feet, initial production 6 bbls. in five minutes. Merrick's No. 1 Negro Masonic Lodge, top pay 3,812 feet, total depth 3,814 feet, initial production 45 bbls. in 20 minutes. Sinclair Prairie Oil Co.'s No. 58-A Mayfield, top pay 3,780 feet, total depth 3,782 feet, initial production 20 bbls. in 30 minutes swabbing. Campbell's No. 1 fee (Green), top pay 3,834 feet, total depth 3,835 feet, initial production 25 bbls. in 20 minutes.

Upshur County

Monday Oil Co.'s No. 9 Younce, top pay 3,603 feet, total depth 3,605 feet, initial production 20 bbls. in one and one-half hours. Conservative Oil Co.'s No. 6 Mackey, top pay 3,706 feet, total depth 3,709 feet, initial production 20 bbls. in 40 minutes. Humble Oil & Refining Co.'s No. 6 Shelton, top pay 3,683 feet, total depth 3,688 feet, initial production 55 bbls. per hour.

MISCELLANEOUS COMPLETIONS

Anderson County—Cayuga

H. L. Hunt's No. 2 Loper, total depth 4,097 feet, initial production 7 bbls. per hour through one-eighth inch choke. Tide Water and Texas Seaboard Oil Co.'s No. 3-C Wills, total depth 4,089 feet, initial production 134 bbls. in 24 hours through one-eighth inch choke.

Angelina County

Howze Oil Co.'s No. 1 Finley, dry and abandoned 2,010 feet, elevation 278 feet.

Magnetic Storm

Tucson, Ariz., observatory of the U. S. Coast and Geodetic Survey report a severe magnetic storm started at 11 a.m. (C.S.T.) September 10 and continued until 2 a.m. (C.S.T.) September 12. Telegrams follow:

"Storm began tenth. Seventeen. Severe."

"Storm ended twelfth. Eight."

Southwest Texas District

DUVAL AND WEBB COUNTIES LEAD ACTIVITY OF THE WEEK

By GEORGE WEBER

SAN ANTONIO, Tex., Sept. 16.—Duval County continued to hold the attention of Southwest Texas operators this week with new developments and a large number of new locations. Other sections of the Laredo district, especially the Lopez and O'Neil Fields in Webb County shared in the new activity with important completions. Wildcat operations and new extensions in Sanfordyce were of prime interest in the Rio Grande Valley area.

Marzo Oil Co.'s No. 1 Hagist, wildcat in northern Duval County, was showing for a good producer, but had not been brought into completion during the week as previously expected. At present the tubing is being run. The gas pressure on the well is expected to flow it through the tubing. Earlier in the week it was bailed through the casing and showed much oil and gas. When bailing was stopped to run casing the hole filled 500 feet with oil over night. The discovery is in the new Government Wells sand at 2,121 feet.

Other wildcat drilling in Duval County held active during the week. Santa Clara Oil Co. announced the location of a new wildcat test, the No. 1 Corbett. It is in northern Duval County and will be carried to 5,000 feet. Santa Clara's No. 1 Sevier, another wildcat 11 miles east of the Seven Sisters Pool, is coring for the Government Wells sand at 3,140 feet. Plymouth Oil Co.'s No. 1 Cuellar in Survey 123 is fishing for a bit at 1,966 feet. Two additional wildcat locations will be announced next week in this county. Stanolind Oil & Gas Co.'s No. 1 Farmers Life, after making oil and water at 2,465 feet, is to be killed and drilled deeper.

Loma Novia

Greatly increased activity is promised in the Loma Novia Field, Duval County, from the number of new locations announced recently, 17 being staked in the past week. Some companies are beginning the development of large blocks and much information regarding the size and extension of the field will result from their operations. Four wells were completed in the field during the week: Stieren Oil Co.'s No. 4 Wright, making 50 bbls. on a three-quarters inch choke; Bridwell Oil Co.'s No. 3-B Hubbard, flowing 133 bbls. through open tubing; Shell Petroleum Corp.'s No. 5 Hubbard, jetting 24 bbls. per hour with a tubing pressure of 300 pounds, and Buchanan & Blanco Oil Co.'s No. 2-B Ruiz, completed for 60 bbls.

Seven Sisters

The Seven Sisters Field in the northern part of the county had five new locations following the completion of several good producers in the past few weeks. Buchanan & Blanco Oil Co., Humble Oil & Refining Co., Shell Petroleum Corp., Bridwell Oil Co. and Sun Oil Co. are drilling the new wells.

In southern Duval County, Mills Bennett completed No. 4 J. Lopez, an eastern extension of the Lopez Field, for 20 bbls. per hour. The well is also making 1,000,000 feet of gas daily.

Magnolia Petroleum Co. announced location of No. 2 D.C.R.C. in the new field discovered recently by the company, west of the Government Wells Field.

Webb County

In Webb County, the O'Hern Field had one of the largest producers in the history of the area, in J. J. O'Hern's No. 2 S. Benevides. The well was brought in early in the week, making 150 bbls. per hour through 2-inch tubing. It is on Block 219 of the Myrtle E. Hale Subdivision, M. Arispe grant, and is producing from 2,761 feet. Magnolia Petroleum Co. also completed No. 6 G. Benevides in the same field for 200 bbls. on a quarter-inch choke.

Frio County

A new test in Frio County was made known by Midland Oil Co., which will drill No. 1 Halff and Oppenheimer, a mile north of production in the Pearsall Field. Amerada's No. 1 Smith, completed recently in a crevice in the Buda Lime has stopped flowing. Treatment failed to produce results and the well will be swabbed. Due to the similarity of the crude from this well to crude produced in Darst Creek, and Salt Flat, Edwards Lime fields, some believe the well marks new production from the Edwards in that section.

Samfordyce

In the Samfordyce Field of western Starr County, extensions and operations in the northwestern and northeastern part claimed the greatest attention. Two completions in Starr County extended the field well to the northwest into that county. Phillips and Barnsdall's No. 1 Yturria Land & Livestock Co. after making good showing on a drill stem test was completed late in the week for 112 bbls. on a 5/32-inch choke. It was still cleaning at the latest report with a tubing pressure of 260 pounds and a casing pressure of 700 pounds. The drill stem test showed 2,500 feet of oil in 14 minutes from the sand at 2,796-2,806 feet. Henshaw and Rothers completed No. 2 Seabury, also in Starr County, late in the week. It was cleaning itself and no gauge was available.

A northern outpost, Mundy and Sons' No. 1 Francisco Guerra is reported on the Samfordyce sand at about 2,800 feet. Casing will be set early in the week on the strength of a Schlumberger test. Several new locations were made in the field, including both inside and outpost locations. Skelly Oil Co. is drilling its No. 5 Seabury at 1,040 feet in the northeast part of the field, and an eastern outpost well, Rogers Oil & Gas Co.'s No. 2-B Guerra is spudded in. Wildcats in Hidalgo, Starr, Cameron and Willacy Counties continued to make hole with no interesting developments.

In eastern Hidalgo County, Union Sulphur continued operations on the two deep wells in the Mercedes Field. The company's No. 4 American Rio Grande set casing at 7,757 feet. No. 5 well is drilling at nearly 7,000 feet, approaching the producing level of the two completed wells.

Section of the Samfordyce Field, showing latest northwest extensions and locations staked in Starr County, Southwest Texas

Lopez Field

In the Lopez Field, Mills Bennett completed No. 4 J. Lopez, for 20 bbls. per hour. G. G. Mortimer's No. 2 M. Lopez in the same field tested 900 ft. of oil in 12 minutes from soft sand at 2,144 feet.

Live Oak County

Activity in Live Oak County failed to draw much interest during the week. Earl Calloway's No. 1 George West found the Cook Mountain sand to be dry and it was abandoned at 4,688 feet. The derrick is being skidded to a new wildcat location, No. 1 Lynne in the same county where a second test will be drilled. J. O Whittington is drilling at 1,200 feet on No. 3 Little, one location southwest of No. 2, discovery well of the new field. Location for No. 4 Little has also been announced. Henderson Coquat's No. 1 Reagan, Live Oak wildcat was abandoned this week at 4,500 feet.

Caesar Field

The Caesar Field in Bee County was increased by three new producers in the past week, two inside the field and one outpost well. Luling Oil & Gas Co.'s No. 3-A Hudman was brought in for 432 bbls. per day on a three-eighths-inch choke. This well extends the field 450 feet to the southwest. McAllister Fuel Co.'s No. 3 Vaughn was completed for 130 bbls. and Commodor & Firm's No. 4 Grissom has an initial of 200 bbls. These wells are producing from sand at about 3,050 ft.

Plymouth Field

One completion and two new locations were recorded for the Plymouth Field of San Patricio County, all Plymouth Oil Co. wells. Plymouth Oil Co.'s 10-C and 12-C Welder wells are being reconditioned to make oil producers. They were brought in previously making gas. The first Plymouth oil was piped this week through the new 6-inch line of Republic Pipe Line Co. Deep water loading at the Corpus Christi terminal will be handled with Texas Co. facilities at present, pending completion of the Republic terminal.

Rocky Mountain Area

OPERATORS' PLANS HELD UP TILL LEASING LAW IS KNOWN

By T. R. INGRAM

DENVER, Colo., Sept. 14.—Several important wildcats scheduled for drilling in the Rocky Mountain area, including at least one deep test in Colorado, are being held up until copies of the O'Mahoney-Greever bill amending the oil leasing act of 1920 are received and studied. This bill was approved by the President August 21, but copies have not become generally available.

The bill as shown by a summary provides for the leasing of the public domain for oil and gas purposes instead of the issuing of prospecting permits under the old 1920 law. Leases are to be issued for a period of five years for prospecting purposes and when a discovery is made they become binding as long as oil or gas is produced. Minimum royalty is 12½ per cent and not to exceed the schedule for B leases under the old permit law. Leases in "known geological areas" where oil or gas has been discovered are to be for 10 years and are subject to competitive bidding. The law does away with the old preferential or A lease at 5 per cent royalty and it is this feature which immediately concerns a large number of permittees who have drilling contracts with operating companies providing for overriding royalties.

All permits heretofore granted or extended and are in good standing are automatically extended to December 31, 1937, and under certain conditions the Secretary of the Interior may extend them for another year. All applicants for permits filed 90 days prior to the new law becoming effective are to be entitled to same under the provisions of the old law. Applications subsequent to the 90-day period automatically become applications for leases. All extensions which have been granted on permits provide for the unitization of the areas.

NEW MEXICO

Lea County

A well that flowed 15,491 bbls. initially was the high-spot well in the New Mexico fields in the past week. It was completed in the Monument Pool in Lea County. Another good one in a considerable number of Lea County completions started at 5,437 bbls. This was in the Hobbs Pool. Results of the week in the various active New Mexican pools follow:

Monument Area

Amerada Petroleum Corp. completed the largest initial producer of the week in No. 1 H. W. Andrews, C NW NW Section 12-20-36. It started at 15,491 bbls. of oil and 14,500,000 feet of gas a day through casing after being acidized at 3,810-3,901 feet. This well is 1 mile south of Monument.

Twin State Oil Co.'s No. 2 Weir, C SW SE Section 35-19-36, on its completion test, flowed 1,888 bbls. in 24 hours through tubing after an acid treatment at 3,852-3,936 feet.

Republic Production Co. made a location for No. 1 Selby & Mavesty, C SE SW Section 35-19-36, and Gypsy Oil Co. a location for No. 1 South Graham State, C SE SE Section 2-20-36. Superior Oil Co. has cellar and pits dug for No. 2 State, C NW NE Section 2-20-36.

Amerada Pet. Corp.'s No. 1 State B, C SW NW Sec. 36-19-36.
Drlg. 3,660 ft.
Shell Pet. Corp.'s No. 1 State B, C SW NW Sec. 26-19-36.
Drlg. 3,470 ft.
Jeffers Oil Co.'s No. 1 Britt, C SE NW Sec. 7-20-37.
Drlg. 2,620 ft.

Hobbs Area

One completion was recorded in the Hobbs Pool, Lea County. Continental Oil Co.'s No. 4 Grimes, 1,650 feet from south and 990 feet from east line of SE ¼ Section 28-18-38, which produced 5,437 bbls. of oil and 1,000,000 feet of gas from pay at 4,111-4,225 feet, which had been given an 8,000-gallon acid treatment. No new work was started during the week. The status of drilling wells follows:

Gypsy Oil Co.'s No. 1 Steve Taylor, C SE NE Sec. 24-18-38 (wildcat).
Tools in.
Continental Oil Co.'s No. 2-B-12 State, C SW SW Sec. 13-18-37.
Flowed 40 bbls. per hour, naturally, through casing, with 3,400,000 ft. gas; T.D. 4,040 ft.; acidized.
Amerada Pet. Corp.'s No. 1 State G, C SW SW Sec. 18-19-37.
Set 7-in. csg. at 3,793 ft.
Samedan Oil Co.'s No. 2 Byers, CWL SW NW Sec. 2-19s-38e.
Drlg. 4,150 ft.
Samedan Oil Co.'s No. 1-B State, CEL SE NW Sec. 25-18s-37e.
Drlg. 4,228 ft., with hole full fluid.
National Securities Oil Co.'s No. 1 Linam, NE SE SW Sec. 22-18-37.
T.D. 4,596 ft.; P.B. to 4,228 ft.; 1,000 ft. oil, 300 ft. water in hole, shut down for orders.
Shell Pet. Corp.'s No. 2 Turner, 1,020 ft. from N line and 2,216 ft. from E line, Sec. 34-18-38.
T.D. 4,226 ft. in lime; acidized third time; flowed 326 bbls. in 7 hrs., cut 4½ per cent with b.s.
Shell Pet. Corp.'s No. 2 Rice, C SW SE Sec. 13-18s-37.
Tubing to test at 4,263 ft.; T.D.
Tide Water Oil Co.'s No. 1 State, 2,310 ft. from N, 330 ft. from E lines, Sec. 14-18-37.
Drlg. 3,020 ft.
Gypsy Oil Co.'s No. 1 Culp, 660 ft. from N, 1,980 ft. from W lines, Sec. 19-19-37.
Drlg. 3,489 ft.
Phillips Pet. Co.'s No. 1 Culp, C NW NW Sec. 19-19-37.
Drlg. 2,410 ft.

Lea Area

Culberson & Irwin's No. 1 Sue Richards, C SW SE Sec. 10-21s-32e.
Drlg. 2,500 ft.
Culberson & Irwin's No. 1 Eva Brown, C NE NE Sec. 23-21s-32e.
T.D. 2,600 ft.; contract depth; S.D.

Cooper Area

Continental Oil Co.'s No. 3-A-14 Vaughn, C SE NW Section 14-24-36, in the Cooper Field, Lea County, was completed. It produced 1,224 bbls. of oil, cut 8 per cent with water, from pay at 3,496-3,537 feet, which had been treated with acid.

Continental Oil Co.'s No. 14-A-6 Vaughn, C NE SW Sec. 14-24s-36e.
Drlg. 3,499 ft.; small show of oil and some gas.
Gypsy Oil Co.'s No. 2 Cooper, C NW SE Sec. 22-24s-36e.
Drlg. 3,461 ft.
Humble O. & R. Co.'s No. 2 Moseley, C NW SE Sec. 10-24s-36e.
T.D. 3,641 ft.; acidized; flowed 50 bbls. in 2 hrs., 7 per cent water, through tubing.
Humble O. & R. Co.'s No. 4 Coats, C NE NE Sec. 10-24-36.
Running 5½-in. csg.; T.D. 3,594 ft.
Tide Water Oil Co.'s No. 1 Coats, C SW NE Sec. 10-24s-36e.
T.D. 3,690 ft.
Stanolind O. & G. Co.'s No. 1 Meyer B, C NW NE Sec. 26-24-36.
Drlg. 2,849 ft.
Skelly Oil Co.'s No. 2 Coates, C NE SW Sec. 3-24-36.
Drlg. 3,240 ft.
Skelly Oil Co.'s No. 3 Coates, C SW SW Sec. 3-24-36.
Drlg. 1,567 ft.
Continental Oil Co.'s No. 1-A-27 Gates, C SE SE Sec. 27-24-36.
Set 7⅝-csg. at 1,664 ft.
Phillips Pet. Co.'s No. 1 Woolworth, C NE NW Sec. 33-24-37 (wildcat).
Drlg. 695 ft.

Eunice Area

In the Eunice Pool Atlantic Oil Producing Co.'s No. 1-D State, NW SE Section 20-21-36, flowed 720 bbls. naturally, with 750,000 feet of gas, at 3,900-31 feet, and was completed.

Humble Oil & Refining Co.'s No. 5 State B, C SE NW Section 29-21-36, flowed 2,184 bbls. in 24 hours from pay at 3,870-3,900 feet with 1,150,000 feet of gas, and was put on the completion list.

Ohio Oil Co. completed No. 1 State-Maxwell, C NE NW Section 16-22-36. It had pay at 3,812-60 feet, which was acidized with 12,000 gallons in three treatments. It produced 400 bbls. of oil in 24 hours through tubing with 200,000 feet of gas.

Atlantic Oil Producing Co.'s No. 1 State H, C SW NE Sec. 5-21-36.
Set 8⅝-in. csg. at 1,350 ft.
Atlantic Oil Prod. Co.'s No. 2-G State, C SW SW Sec. 5-21s-36e.
T.D. 3,904 ft., testing with gas, producing 15 bbls. per hr., and 500,000 ft. gas.
Continental Oil Co.'s No. 8-A-4 Myers, C NW SW Sec. 8-21s-36e.
Flowing 45 bbls. per hr. through casing. Gas at rate of 3,170,000 ft. per day. Running tubing.
Continental Oil Co.'s No. 17-B-1 Meyers, C NE SE Sec. 17-21s-36e.
Drlg. 3,870 ft.
Continental Oil Co.'s No. 8-B-3 Meyers, C SW NW Sec. 8-21s-36e.
Flowed 25 bbls. per hr. through tubing, with 1-in. choke; gas at rate of 5,780,000 ft. per day; T.D. 3,875 ft.
Gypsy Oil Co.'s No. 1 Orcutt, C SE NW Sec. 5-21-36.
Testing through tubing, T.D. 3,870 ft.
Gypsy Oil Co.'s No. 5 Ball-Ramsey-State, C SW SW Sec. 4-21-36.
Crooked hole; plugged back to 2,000 ft.
Jim Murray's No. 1 Wallace, SW SW SW Sec. 3-21s-36e.
Drlg. 2,840 ft.
Texas Pacific Coal & Oil Co.'s No. 1-A State, Acct. 2, 1,974 ft. from W and 660 ft. from S line of SW¼ Sec. 9-22-36.
Est. 20,000,000 ft. of gas in short test, after acidizing; T.D. 3,835 ft.
Twin State Oil Co.'s No. 1 Record, C NW NW Sec. 22-22s-36e.
T.D. 3,665 ft.; repairing rig.
R. Olsen's No. 2 State, C NE SE Sec. 5-21-36.
Drlg. 2,300 ft.
Shell Pet. Corp.'s No. 2 Coleman, C NE SE Sec. 17-21-36.
Drlg. 2,080 ft.
Gypsy Oil Co.'s No. 1 Janda, C SE SE Sec. 20-21-36.
Drlg. 3,400 ft.
Empire Gas & Fuel Co.'s No. 1 State D, C NW NE Sec. 32-21-36.
Drlg. 3,100 ft.
Jeffers Oil Corp.'s No. 1 Britt, 1,980 ft. from N and W lines, Sec. 7-20-37.
Drlg. 2,600 ft.
Empire Gas & Fuel Co.'s No. 2 State C, C SW SW Sec. 16-21-36.
Drlg. 1,730 ft.
Continental Oil Co.'s No. 3-A-18 Meyer, NE NE SE Sec. 18-21-36.
Set 7⅝-in. csg. at 1,678 ft.
Continental Oil Co.'s No. 3-A-18 Lockhart, C NE SW Sec. 18-21-36.
Set 10¾-in. csg. at 329 ft.

Jal Area

Empire Gas & Fuel Co.'s No. 2 B. Lindley, 2,310 feet from south and 2,310 feet from west lines of Section 13-25-6, Jal Pool, Lea County, produced 650 bbls. of fluid, about 60 per cent water, through a quarter-inch choke on tubing, and 1,000,000 feet of gas at 3,257 feet. It was completed.

Anderson-Prichard Oil Corp.'s No. 1 Langley, C SE SE Section 8-25-37, made 84 bbls. in 24 hours after a shot at 3,400-30 feet. It also produced 750,000 feet of gas. It was completed.

Jeffers Oil Co.'s No. 1 Carlson, C NW SE Section 27-25-37, was dry and abandoned at 3,652 feet.

Harry Leonard's No. 1-B Justice, SW NW NW Sec. 20-25-37.
Drlg. 3,390 ft.
Phillips Pet. Co.'s No. 1 Woolworth, Blk. 2, C SW SW Sec. 6-25s-37e.
T.D. 3,407 ft.; swabbed 75 bbls. oil and 1,000,000 ft. gas in 24 hrs.
Byrd-Frost, Inc.'s No. 2 Wills A, 2,310 ft. from N and E lines, Sec. 12-25-36.
Running 10-in. csg. to 1,628 ft.

Eddy County

Fred Brainerd's No. 1 Featherstone, CEL SW SW Sec. 35-16s-28e.
Drlg. 630 ft.
R. D. Compson's No. 6 Mann, NW SW NE Sec. 4-18s-27e.
Drlg. 1,310 ft.
Dooley & Shank's No. 1 McClay, C NE SE Sec. 33-18s-30e.
2,000 ft. sulphur wtr. in hole at 3,526 ft.; S.D.
Dooley et al's No. 1 Commerce Trust, NW NE SW Sec. 8-20s-27e.
Drlg. 800 ft.
Etz Bros.' No. 1 State, C SE SW Sec. 16-17s-30e.
Rigging up.
Flynn, Welch & Yates' No. 70 State, C NE NW Sec. 27-18-28.
Drlg. 2,510 ft.
Getty Oil Co.'s No. 7 Dooley, SW SW NW Sec. 24-20s-29e.
Drlg. 6,345 ft.
Red Lake Oil Co.'s No. 5 State, NW NW NE Sec. 27-17s-28e.
S.D. 150 ft.
Van P. Welch's No. 1 State, NW cor. Sec. 35-16-31.
Drlg. 2,020 ft.

Sandoval County

Continental Oil Co.'s No. 1 L-Ranch, 2,010 ft. from N and 330 ft. from E lines, Sec. 2-13-14w.
Set 7⅝-in. csg. 3,265 ft.

Chaves County

Comanche Drlg. Co.'s No. 2 Sloop-Purcell, C NE NE Sec. 15-11s-26.
Location.
John Tannehill's No. 1 Campbell, NE SE NE Sec. 1-11s-25.
U.R. 8-in. csg. to 820 ft.
Warman Oil Trust's No. 1 Weldon & Hoar, NW NW SE Sec. 9-14-25.
T.D. 1,683 ft. in sand; P.B. to 1,395 ft.; S.D.
Spanish Grants Oil Co.'s No. 1 fee, 330 ft. from N and 2,310 ft. from W lines, Sec. 2-8-23.
Location abandoned.

NORTHWEST NEW MEXICO

Bernalillo County

Norins Realty Co., Inc.'s No. 1 Gallegan grant, C NW NW Sec. 19-11n-4e.
T.D. 200 ft.; S.D.; (correction).

Rio Arriba County

El Vado Structure Properties Co., Ltd.'s No. 1-A Tierra Amarilla grant, NE Sec. 26-3s-1e; (unsurveyed).
Rigging.

Sandoval County

Continental Oil Co.'s No. 1 L-Bar Cattle Co., CEL SE NE Sec. 2-13n-4w.
Drlg. 3,327 ft.; red shale and sand.

San Juan County

Aztec Coop. Oil Co.'s No. 1 Aztec, SE SW Sec. 10-30n-11w.
Material on ground.

J. F. Cross et al's No. 1 Wilson, SW SW SE Sec. 17-30-11w.
S.D. 810 ft.

Continental Oil Co.'s No. 46, NW SW SW Sec. 1-29n-19w.
S.D. 787 ft.; tested 31 bbls. of oil and 22 bbls. of wtr. first 24 hrs.

Cross & Poole's No. 1 Aztec, Sec. 1-30-11w.
Making wtr. shutoff at 740 ft.

A. E. Haney's No. 1 Hare, SE SE Sec. 14-20-11w.
Comp., 664-700 ft. for 3 bbls.

Jack Amenda's No. 2, NE SW Sec. 25-30n-12w.
Drlg. 400 ft.

Kutz Canon O. & G. Co.'s No. 1 Day, SW SW SW Sec. 20-28-10.
Drlg. 4,389 ft.; increase in gas.

R. C. Oswell's No. 4 Government, SW SW NE Sec. 34-30-11w.
S.D. 1,790 ft.

R. C. Oswell's No. 6 Government, SE NE Sec. 33-30-11w.
Spudded and S.D.

Phillips & Spence's No. 2 Martin, NW NE SW Sec. 34-30n-11w.
Comp. for 238,000 ft. gas in sands at 937-49 ft. and 1,013-19 ft.

Reserve Oil Co.'s No. 6 Shaffer, SE NE SE Sec. 36-22n-14w.
Location.

San Juan Pet. Co.'s No. 1 Lemley, NE SE SE Sec. 32-30-11w.
S.D. 1,314 ft.

Nick Spatter's No. 1 fee, C NE SW Sec. 32-31-11w.
Drlg. at 1,560 ft.

W. R. Webb's No. 1 fee, CEL NE NW Sec. 6-30-11w.
P.B. from 1,500 ft. to 1,350 ft.; set pipe and preparing to test.

Torrance County

48 Pet. Co.'s No. 1 Greenfield, C NW SW Sec. 17-9n-8e.
Drlg. 650 ft.; shells and shale.

Bruce Frazier's No. 1 Frazier, SE Sec. 12-2n-3l.
Drlg. 1,210 ft. in granite wash wtr. at 882-86 ft.

Union County

Sierra Grande Oil Corp.'s No. 1 Rogers, C NE SW Sec. 4-29-20.
T.D. 2,715 ft.; in granite.

Pres-Sel Dev. Co.'s No. 1 Morris, SE NE Sec. 30-12-10w.
Dry and abd. at 625 ft.

Ringle Dev. Co.'s No. 2 Tome grant, C NE SE Sec. 20-6n-3e.
Rigged and S.D.

Ringle Dev. Co.'s No. 1 Tome grant, C SE SE Sec. 36-6n-3e.
S.D. 400 ft.

Western Natural Resources Corp., Inc.'s No. 2 San Clemente, SE SE NW Sec. 5-6n-1e.
T.D. 6,001 ft.

COLORADO

Adams County

Riddle Pet. Co.'s No. 1 Baxter, C SW Sec. 2-3s-66w.
Standing partly rigged and drlg. wtr. well; T.D. 1,025 ft.; U.R. 4¾-in.

Archuleta County

Wm. E. Hughes Est.'s No. 2 fee (unsurveyed), approx. SW Sec. 24-33n-2e.
Spudding.

Oil City Pet. Co.'s No. 1-A Garnett, NW NE NW Sec. 25-33n-2e.
Drlg. 1,512 ft.; Muddy sand 1,459-97 ft.; shale 1,497-1,510 ft.; back into sand at 1,510 ft. with show of oil, no water.

Navajo Oil Co.'s No. 1 Crowley, SW SW NE Sec. 11-32n-1e.
Drlg. below 1,130 ft.; show of oil, gas and wtr. in top of Sundance at 1,130 ft.

Baca County

J. H. Everett et al's No. 1, 330 ft. NW cor. Sec. 24-32-48.
Spudded wtr. well.

Boulder County

Leslie R. Steele et al's No. 1 Maxwell, SW NE NW Sec. 24-1n-71.
Tools recovered; resumed drlg. 1,665 ft.

Fremont County

Waterville Oil Co.'s No. 1 State, SE SE NW Sec. 16-18s-69w.
T.D. 2,780 ft.; 150 ft. of oil in hole; U.R. 6-3/16-in. at 2,750 ft.

Grand County

Colorado Oil Ref. Co.'s No. 1 Linke, NE SW SW Sec. 13-1n-77w.
Drlg. 2,550 ft. in gray shale.

Interstate O. & G. Co.'s No. 1 Hinman, NE NE NW Sec. 11-2n-81.
S.D. 2,997 ft.

Huerfano County

S. W. Pressey's No. 1 Ojo, SW NE Sec. 10-26-69.
S.D. 2,550 ft.

Collins & Quinn's No. 1, C W½ E½ Sec. 4-28s-68w.
S.D. 4,115 ft.

Jackson County

A test nearing its most interesting stage is the Continental Oil Co.'s No. 3 Hoye on the South McCallum structure. It is located about one-fourth mile to the northwest of No. 1 Hoye, which encountered a sand at 4,875 feet in 1927 and made 50,000,000 feet of carbon dioxide gas with some oil testing 45.8 gravity A.P.I. scale.

Colorado Oil Ref. Co.'s No. 1 North Park Coal, NW NW Sec. 18-9n-78.
T.D. 1,805 ft.; straight reaming for 12½-in. to set at 1,500 ft.

Continental Oil Co.'s No. 3 Hoye, NW NW NE Sec. 34-9n-78.
Drlg. 4,378 ft. in shae.

Jefferson County

Ruby Hill O. & G. Co.'s No. 1 Braden, SE cor. Sec. 24-4s-69.
T.D. 4,230 ft.; drlg. on iron.

Las Animas County

Mountain State Oil Corp.'s No. 1 Nickola, C NE NE SE Sec. 10-34-62.
S.D. 1,640 ft.

Lincoln County

Consolidated Smelting & Metals Co.'s No. 1 Hancock, NE NE Sec. 7-17s-52.
T.D. 1,720 ft. (cor.); drlg. on iron.

Moffat County

Mountain Fuel Supply Co.'s No. 1 Kuykendall, NE NE SE Sec. 22-12n-100w.
Rigged and ready to D.D. from 2,025 ft., old T.D.

Stanolind O. & G. Co.'s No. 5-S Parkinson, NW cor. SE Sec. 22-4n-92.
T.D. 3,279 ft.; top of Sundance, 3,274 ft.; 7-in. cmtd. at 3,277 ft.

Montezuma County

McElmo Oil Co.'s No. 1 West, in the McElmo Canon district, which attracted attention several weeks ago when it had oil in the hole at 3,131 feet, is now drilling at 3,705 feet and has been cutting streaks of gray lime for the last 500 feet, all of which contained small shows of oil ranging from a gallon or two up to a barrel each. The drillers identify the horizon in which the hole is now drilling as the same encountered in the old Midwest Oil Co. test, 2 miles to the northwest, at 3,855 feet, and in Continental Oil Co.'s No. 16 on the Rattlesnake Dome to the south in northwestern New Mexico at 5,760 feet. If these correlations are correct, it still has several hundred feet to go to reach the main objective.

McElmo Oil Co.'s No. 1 West, NE NW NE Sec. 21-36n-17w.
Drlg. at 3,705 ft.

Morgan County

Swisher et al's No. 1 Lunt, 92 ft. W of E line and 360 ft. N of S line, Sec. 2-4n-60.
T.D. 1,075 ft.; U.R. 4¾-in. to shut off water at 800 ft. which broke in.

Park County

South Park Oil Co.'s No. 1 State, SE SE SW Sec. 16-11s-75w.
Drlg. 3,428 ft.; carrying 8¼-in. at 3,400 ft.; test of gas shows 2½ gals. to 1,000 ft.

Prowers County

Trojan O. & G. Co.'s No. 1 Lotus Oil, NW NE NE Sec. 15-23-46.
Drlg. below 5,359 ft.

Routt County

Mid-Colo. Pet. Co.'s No. 1 Omhalt, NE NE SE Sec. 29-4n-87w.
T.D. 2,750 ft.; preparing to run 8¼-in. to bottom wtr. in Dakota; show of gas at 2,750 ft. on top Lakota.

WYOMING

Albany County

California Co.'s No. 2 Holst, SW NE SE Sec. 13-17n-77.
S.D. 3,130 ft. for wtr.

California Co.'s No. 1 Wilson, NW SW SW Sec. 18-17n-76.
S.D. 1,010 ft. (cor.) for wtr.

Big Horn County

J. W. Bales' No. 1 Parker, C SW SW Sec. 23-49-89.
Drlg. 400 ft.; show oil and gas in top of Madison at 350 ft.

Peter Evanoff's No. 1 Griffin, Lot 60, Sec. 4-55-97.
Drlg. 1,750 ft. and carrying 15½-in.

Peter Evanoff et al's No. 1 McAllister, Lot 50, NW NE SE Sec. 3-55n-97w.
Drlg. 1,800 ft.

W. S. Gilbert's No. 1 Zaring, SE SE SE Sec. 35-52-93w.
Drlg. 860 ft.

Joan Oil Co.'s No. 1 Howell, NW SE NE Lot 63, Sec. 32-55n-97.
Drlg. 925 ft.

McAlpine O. & G. Co.'s No. 2, SE SE NW Sec. 3-55n-97w.
Moving in materials.

Ohio Oil Co.'s No. 2 Sidon Canal, C SW SW Sec. 24-56-97.
T.D. 5,275 ft.; top Tensleep sand 5,139 ft.; swbd. 350 bbls. oil; pumped 370 bbls.

Ohio Oil Co.'s No. 3 Byron Union, SE NW NE Sec. 22-56-97.
Drlg. 5,200 ft. in red beds.

Ohio Oil Co.'s No. 4 Byron Union, SW NE Sec. 22-56-97.
Rig up.

Ohio Oil Co.'s No. 3 Sessions, NW SW NW Sec. 32-56n-97w.
Drlg. 1,342 ft.

Montana-Wyoming Oil Co.'s No. 1 Government, Lot 52, Sec. 18-56n-97w.
Drlg. 1,020 ft.

Peay Oil Co.'s No. 2 Government, SE SE SE Sec. 10-55n-97w.
R.U. cable tools.

J. H. Shaffer's No. 1 Keachie, C SW SW Sec. 7-49-91.
S.D. 1,170 ft. (cor.); 8¼-inch, frozen at 1,080 ft.

Taylor Oil Co.'s No. 1 Hoskins, Lot 5 (SE SE), Sec. 25-56-97.
C.O. to bottom at 5,275 ft. and making new hole.

Wyoming O. & R. Co.'s No. 1 Evans, NE NE NW Sec. 12-49-91.
Set 1½-in. at 85 ft. (cor.) and S.D.

Yale Oil Corp.'s No. 1 Allen, Lot 52, Sec. 32-56n-97w.
Drlg. 1,020 ft.

Carbon County

Union Oil Co. of California, which recently re-entered the Rocky Moun- area through the purchase of a half interest in the Sundance and lower horizons from Sidney H. Keoughan and associates on the Dutton Creek structure, has about completed the drilling of a series of core holes and is ready to begin a geophysical survey preliminary to making a location for a deep test.

Ohio Oil Co. is preparing to use its No. 4 Diamond Cattle Co. test in the SE SW NW Section 35-20-78, Rock Creek Field, as a key well for repressuring the pool with gas drive. This well was drilled down to the Sundance at a total depth of 3,537 feet and failed to find commercial production. It then plugged back to the Dakota and ran a 6-inch liner. It will be perforated at 2,740-2,815 feet.

Ohio Oil Co. and California Co.'s No. 2 State, C NW NW Sec. 36-21n-79w.
Drlg. 3,841 ft.

Ohio Oil Co. and California Co.'s No. 1 Union Pacific, Acct. J, NE SW NW Sec. 25-26-79w.
Spudding at 40 ft.

General Pet. Corp.'s No. 1 Whitford, SW SE NE Sec. 24-20-84.
Coring at 5,200 ft.

General Pet. Corp.'s No. 1 Union Pacific, C SW SW Sec. 19-20-83.
S.D. 5,931 ft.; may be deepened.

Sinclair Wyoming Oil Co.'s No. 9 Wertz, NE NW NW Sec. 7-26n-89w.
T.D. 374 ft.; 12½-in. at 357 ft.; W.O.C.

Shirley-Wyoming Oil Co.'s No. 1 Government, NW NE Sec. 21-26n-80w.
Rig.

Converse County

Chadron-Osage Oil Co.'s No. 1 State, SW cor. Sec. 16-32-69.
Drlg. 1,500 ft.

Continental Oil Co.'s No. 60 State, NW SW NE Sec. 9-33-76.
T.D. 3,135 ft.; reamed 16-in.; hole to 3,115 ft.

Otto Olson et al's No. 1 Carey, Sec. 6-32-71.
S.D. 642 ft.

John Ackard's No. 1 Daniels, SW SW SE Sec. 17-32-71.
Drlg. 2,850 ft.

Crook County

Dr. R. B. Kinter's No. 1 Rockfort-Wyoming, CNL NE SE Sec. 13-62n-62w.
Trying to make wtr. shutoff at 1,337 ft.

Fremont County

Monongahela Oil Co.'s No. 1 Wisda, at Crook's Gap, recovered drill stem and deepened hole to 4,517 feet, reported 3 feet in dry Dakota sand. Cores showed formations were dipping rapidly at this location and the well was down structure. It has not been decided whether the hole will be carried to 3,700 feet, the contract depth, or abandoned and new location made higher on structure.

Mid-American Oil Co.'s No. 3 Government, NW NE SW Sec. 25-28-92.
Drlg. 1,450 ft.

Monongahela Oil Co.'s No. 1 Wisda, NE SE SE Sec. 13-28-93.
S.D.O. at 4,517 ft.

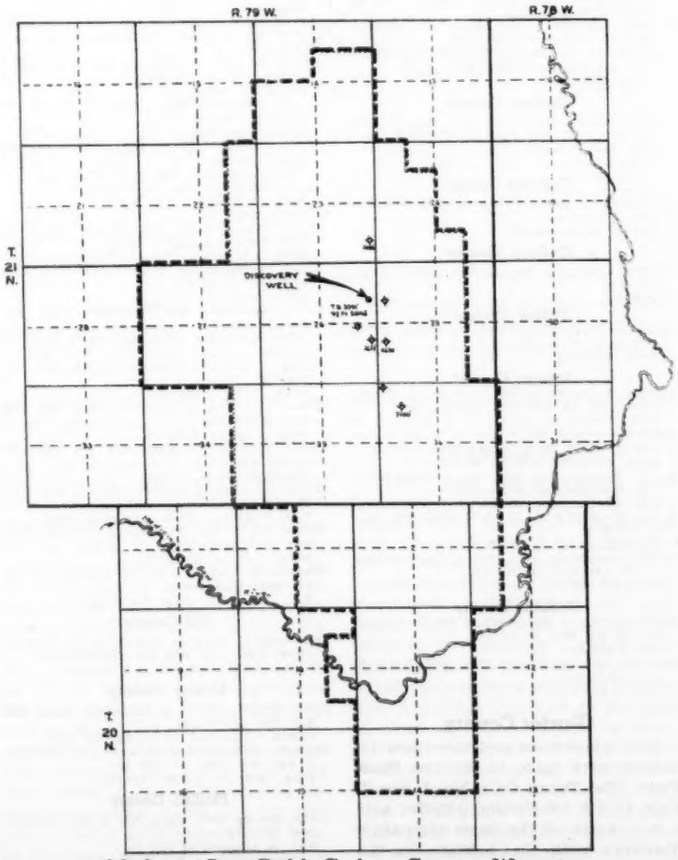
Nelson & Poupiert's No. 3 Enos, Lot 7, Sec. 27-3n-1w.
Drlg. 921 ft.

Hot Springs County

Argo Oil Co.'s No. 1 Rathvon-Government, NE SW NW Sec. 14-44n-98w.
Cmtd. 8⅝-in. at 2,800 ft.

California Exploration Co.'s No. 2 Government, NW SW NW Sec. 7-44-96.
S.D. 2,518 ft. (cor.)

Ohio Oil Co.'s No. 79 Millsiron Cattle Co., NE SE SE Sec. 19-46n-98w.
Rigging up.



Medicine Bow Field, Carbon County, Wyoming

Oscar G. Grace's No. 1 Government, SW NW NW Sec. 21-43-92.
T.D. 618 ft.; P.B. to 425 ft. and testing show for a 2-bbl. well.

Lincoln County

Senrab Oil Co.'s No. 3 Government, N SE NW Sec. 10-26-113.
S.D. 1,011 ft.

Superior-Wyoming Oil Co.'s No. 2-B, Lot 3 (NW NW), Sec. 3-26n-113w.
Drlg. 780 ft.

Niobrara County

Ohio Oil Co.'s No. 4 Carrie Putnam, one-fourth of a mile to the east of the nearest Sundance sand producer in the Lance Creek Field, which found water in the first and second sands and did not look encouraging, will be a good well in the third Sundance, according to present indications, although it has not yet been completed and tested. It is bottomed at 4,000 feet in the red beds and cut the third sand at 3,942-96 feet. It began flowing through the drill stem at the rate of 60 bbls. an hour. The tester then stuck and fishing is now in progress. This well proves up another quarter. Continental Oil Co.'s No. 5 Rohlf, which is a near completion, will prove up some additional territory on the west side and with these two completions, approximately 1,200 acres will be proven for production in the Sundance.

Black Hills Ref. Co.'s No. 1 Wright, SE SE SW Sec. 23-36-64.
Derrick; W.O. rotary equipment from California.

Continental Oil Co.'s No. 5 Rohiff, 550 ft. E of W line and 580 ft. N of S line, SW Sec. 31-36n-65w.
Coring in red beds at 3,900 ft.; saturated third Sundance sand at 3,878-95 ft.; top of red beds at 3,895 ft.

J. H. Huber Co.'s No. 1 Jones, NE NE NW Sec. 6-35n-65w.
Drlg. 2,068 ft.

Interstate O. & R. Co.'s No. 1 Morrell, NW NE SE Sec. 9-29-61.
T.D. 3,030 ft.; P.B. to 2,835 ft.; S.D.

Fall River Royalty & Producers Co.'s No. 5-L Briggs, CSL NE NE Sec. 2-39n-61w.
Drlg. 300 ft.

Ohio Oil Co.'s No. 5 Converse Sheep, C SE SW Sec. 32-36n-65w.
Rig up.

Ohio Oil Co.'s No. 7 Lamb, C NW NE Sec. 5-35n-65w.
Rig up.

Ohio Oil Co.'s No. 4 Putnam, C SW SW Sec. 33-36-65.
T.D. 4,000 ft.; fshg. for stuck drill stem.

Riggs Drlg. Co.'s No. 1 Spaugh, CNL NW NE Sec. 5-33n-65w.
S.R. 8¼-in. to set at 400 ft.; wtr. in Dakota at 80 ft. and Lakota at 170 ft. (change in loc.).

S. & H. Dev. Co.'s No. 1-A Olinger, SE NE NW Sec. 1-36-63.
S.D. 1,650 ft. with 1,200 ft. of wtr. in Dakota, topped at 1,620 ft.

Park County

Continental Oil Co.'s No. 4 Northern Pacific, NW NE SE Sec. 23-58n-98w.
Location.

Geo. T. Beck's No. 1 fee, NW SE NW Sec. 27-33-101.
Testing oil show in Frontier at 1,315-31 ft.; bailed 5 bbls. in 24 hrs.; 5 3/16-in. at 1,312 ft.

Garland Oil Co.'s No. 2 Government, SE NE NW Sec. 14-56-98.
S.D. 2,160 ft.

Resolute Oil Co.'s No. 1 State, C NW SW Sec. 16-57-101.
S.D. 3,608 ft.

Sheridan County

Beaver Creek Oil Synd.'s No. 1 Allison, SW SE Sec. 15-55-85.
S.D. 2,660 ft.

Sublette County

Texas Co.'s No. 7-K, SW SW SE Sec. 34-27n-113w.
Drlg. 390 ft.

Piney-LaBarge Oil Co.'s No. 2 Government, CEL NE NW Sec. 18-28-113.
Drlg. below 520 ft.

Sweetwater County

An important extension of the gas area in the South Baxter Field took place in Wyoming-California Petroleum Corp.'s No. 1 Whalen, SE cor. Section 20-16-104, which was completed at 2,430 feet for 9,000,000 feet a day of sweet gas in the Frontier at 2,370-90 feet. The location is a little more than half a mile to the southwest of Mountain Fuel Supply Co.'s No. 2 Union Pacific, SE cor. NW Section 21, which was completed in the Frontier at 2,356-2,447 feet for 12,500,000 feet in July, 1933. In 1933 the Mountain Fuel Supply Co. also completed its No. 3 Poston, C NW NW Section 22, for 8,300,000 feet. All three of these wells are outside of what was considered the closing contour.

Vermillion Oil Co.'s No. 1 Government, SW SW SW Sec. 7-12n-99w.
Moving in material.

W. D. Marshall's No. 1 Government, NW SW SE Sec. 12-15n-118w.
Drlg. 200 ft. (first report).

Uinta County

Intermountain Pet. Corp. of Utah's No. 1 Union Pacific-Hayes, SW NW SW Sec. 29-14n-118w.
Drlg. 1,450 ft. (formerly General Pet. Corp. of Utah).

Washakie County

Arlton & Doyle's No. 1 Government, SW SW SE Sec. 29-48n-91w.
Drlg. 600 ft.

Wyoming O. & R. Co.'s No. 1 Frison, NW SW NW Sec. 14-48-91.
Drlg. 1,710 ft.

Weston County

August production in the Osage Field was 20,466 bbls., and deliveries to refiners totaled 19,994 bbls.

Three completions were reported as follows: Des Moines-Osage Syndicate's No. 10, NE cor. Section 25-45-64, was completed in sand at 1,415-33 feet for 20 bbls. a day after being shot. Herbison & Son's No. 5 Draper, CNL NW NW Section 22-46-63, was completed at 190-193 feet for 2 bbls. Albert Jones' No. 10 Bock, CSL NW NE Section 21-46-63, was dry at 480 feet.

Conway Oil Corp.'s No. 1 Government, C SE NW Sec. 7-41-60.
Fishing for tools 2,087 ft.

Federal Oil Co.'s No. 3 Government, C NE SE Sec. 15-46n-64w.
Location.

Beaver Creek Oil Synd's No. 1 State, C NE NE Sec. 23-44-63.
Spudded and S.D.

Harkins et al's No. 1, SW SW NW Sec. 21-46n-64w.
Ready to spud.

L. C. Packham's No. 1, NW NW NW Sec. 19-46n-63w.
Resumed at 450 ft.; R.U. to run 8¼-in. to bottom.

MONTANA

Big Horn County

Daniels Pet. Co.'s No. 1 May, C SE SE Sec. 13-1s-32e.
Drlg. at 2,437 ft.; water at 2,300 ft. saved between 8 and 10-in.

Enterprise Oil Co. et al's No. 2 Lynde, SW SW SE Sec. 21-6n-35e.
Drlg. 2,700 ft.

Carbon County

Bailey Round Butte Oil Co.'s No. 1, 1,120 ft. W of E line and 3,140 ft. N. of S line, Sec. 2-6s-23.
Drlg. 1,439 ft.

Cascade County

C. Leonard Smith's No. 1, NE NE SW Sec. 14-22n-2e.
Set 10-in. at 142 ft.

Choteau County

Mills & Decker's No. 1, NE NW Sec. 29-27n-13e.
Rig up.

Fallon County

Montana-Dakota Utilities Co.'s No. 1, NE NW Sec. 17-3n-62e.
Drlg. 1,107 ft.

Fergus County

Button Butte O. & G. Co.'s No. 1 Woodward, SE SE SW Sec. 20-14n-24.
Drlg. 3,095 ft.

Emmons et al's No. 1, 220 ft. W of E line and 2,140 ft. N of S line, Sec. 6-20-18.
Drlg. 2,070 ft.; 6⅝-in. at 2,040 ft.

S. W. Pennock et al's No. 1 Nordheim, NW NE NE Sec. 6-21n-18e.
S.D. 480 ft. (corrected).

E. A. Fenhoit's No. 1, NW NW SW Sec. 24-21n-17e.
Rigging up.

Judith Operating Co.'s No. 1 Government, C SW SW Sec. 24-22n-17e.
Drlg. at 500 ft.

Gallatin County

Montana Gas & Pet. Corp.'s No. 1 Adams, SE SE SE Sec. 36-2n-1e.
S.D. 2,400 ft.

Ben W. Ryan's No. 1 Tice, NE NE NE Sec. 28-1n-2e.
Drlg. 2,479 ft.

Glacier County

Two completions and three new locations were made in the Cut Bank Field. The Texas Co.'s No. 1 Sec. 9 Unit, C NW SE Section 9-32-5w, half a mile north of the same company's discovery well, No. 1 State, in the south extension of the pool, swabbed 175 bbls. the first 24 hours at a total depth of 3,010 feet. The Sunburst at 2,914-44 feet had a show of oil and the Cut Bank was at 2,980-95 feet. The elevation is 3,908 feet. The other completion was Goodstein & Smith's No. 1 Olson, C NE SE Section 26-34-6w, which swabbed 35 bbls. in eight hours from the pay at 2,918-35 feet. Total depth is 2,944 feet. One of the new locations is a wildcat nearly 2 miles west of production in the Montana Headlight Oil Co.'s No. 1 Allison, C SE SE Section 20-34-6w.

A. B. Cobb's No. 5 Walberger, C NE SE Sec. 35-35n-6w.
Rig on location; (first report).

C. P. Castle's No. 3 State, C NW SW Sec. 36-35-6w.
Colo. at 420 ft.; 10-in. at 458 ft. with 50 sacks; drlg. 500 ft.

Chas. Grant's No. 1 Askins, Lot 24, Blk. 33, Sec. 12-33-6w.
T.D. 2,700 ft.; sidetracking at 2,150 ft.

Consolidated Gas Co.'s No. 10 Tribal, Lot 6 (SW SW NE) Sec. 34-35-6w.
Top Colo. 540 ft.; 10-in. 590 ft. with 50 sacks; drlg. 780 ft.

Consolidated Oil Co.'s No. 9 Tribal, Lot 5 (SW NW NE) Sec. 34-35-6w.
Drlg. 1,650 ft.

Custer Oil Co.'s No. 1 Tweedy, 440 ft. from W line and 330 ft. from N line, NE Sec. 36-33n-6w.
Drlg. in at 2,950 ft.

Fowler et al's No. 1 Tweedy, SW SE SE Sec. 25-33-6w.
Rigging.

L. R. Hannah, tr.'s No. 2 State, 93 ft. from E line and 158 ft. from N line, Sec. 12-33n-6w.
Drlg. 925 ft.; 10-in. at 590 ft.; Colo. 560 ft.

R. C. Tarrant's No. 1 Thacker Bond & Mtg., C NW NW Sec. 27-32-5w.
Moving in material; (formerly L. R. Hannah, tr.).

R. C. Jeffries' No. 3 Lukens, 360 ft. N of S line and 1,540 ft. S of E line, Sec. 1-33n-6w.
Drlg. 2,810 ft.

Montana Headlight Oil Co.'s No. 1 Allison, C SE NE Sec. 20-34n-6w.
Rigging; (first report).

Montana Power Gas Co.'s No. 1 Reagan, 660 ft. W of C Sec. 28-35-5w.
Drlg. 1,570 ft.; Colo., 370 ft.; 10-in. at 392 ft.

Montana Power Gas Co.'s No. 1 Hall, C SW SE Sec. 35-35n-6w.
Drlg. 1,905 ft.

Montana Power Gas Co.'s No. 1 Maltby, C SE NE Sec. 8-33n-5w.
Rigging; (first report).

Santa Rita O. & G. Co.'s No. 2 Government, SW NE SE Sec. 32-35n-5w.
Rigging.

Santa Rita O. & G. Co.'s No. 2 McCabe, NW SE NE Sec. 31-33-5w.
Rigging.

Santa Rita O. & G. Co.'s No. 1 Jocobson, C NE SW Sec. 8-33n-5w.
Ready to spud.

R. C. Tarrant's No. 4 Miller, C SE NE Sec. 24-34n-6w.
Cellar and sump.

R. C. Tarrant's No. 2 Getty, NW NW SE Sec. 2-34-6w.
T.D. 2,700 ft.; will skid rig.

R. C. Tarrant's No. 4 Britton, C SW SW Sec. 12-34-6w.
Drlg. 2,640 ft.

R. C. Tarrant's No. 6 Haglund, Jr., C SE NW Sec. 13-34-6w.
Drlg. 1,825 ft.

R. C. Tarrant's No. 2 Larson, C W½ W½ NE Sec. 12-34-6w.
Drlg. 2,555 ft.

R. C. Tarrant's No. 2 Yunck, CEL NW Sec. 12-34n-6w.
Drlg. out cmt.; 10-in. at 420 ft. with 50 sacks.

Texas Co.'s No. 2 Peterson, C SW Sec. 23-26n-5w.
Stdg. cmtd. 2,795 ft.

Texas Co.'s No. 1 Mueller, CWL SW SW Sec. 2-35n-6w.
Stdg. 7-in. at 2,963 ft.

Texas Co.'s No. 2 Long, SW NE SW Sec. 23-35n-6w.
Rigging; (first report).

Texas Co.'s No. 1 Tweedy, C N½ NE Sec. 21-35n-6w.
T.D. 3,017 ft.; W.O. pumping unit.

Texas Co.'s No. 3 Kearns, C NE NW Sec. 23-35n-6w.
Stdg. 7-in. at 2,783 ft.

Watson & Klatner's No. 1 Britton, C SE SE Sec. 14-34n-6w.
T.D. 2,100 ft.; fshg. for tools.

Hill County

Independent Natural Gas Co.'s No. 1 Morphey, CEL SW SW Sec. 14-32n-17e.
Cmtd. 8¼-in. at 790 ft.

Liberty County

John Wilde's No. 2-A Mahoney, CWL SE SW Sec. 23-37n-4e.
Comp. at 1,660-1,720 ft. for 10 bbls.

Western Natural Gas Co.'s No. 1 Wallace, C SW NW Sec. 15-37n-4e.
Drlg. 900 ft.; (first report).

Phillips County

Little Rocky Dev. Co.'s No. 1, SE SE SE Sec. 17-24-24.
S.D. to finance at 352 ft.

Phillips Dev. Co.'s No. 6 Government, NW SW Sec. 21-24n-24e.
S.D. at 659 ft.; show gas at 568-604 ft., water at 650-59 ft.

Pondera County

Wm. M. Fulton's No. 1 Erickson, SW SW NW Sec. 10-27n-4w.
Drlg. 1,747 ft.

Norden Corp., Ltd.'s No. 1 Hollan, NW NW NW Sec. 12-28n-6w.
S.D. 500 ft. to comp. leasing.

Texas Co.'s No. 1 Unit, C SW SW Sec. 3-30-5w.
Drlg. 2,701 ft.; carrying 7-in.

Stillwater County

Continental Oil Co.'s No. 1 Parker, 500 ft. N of S line and 660 ft. E of W line, SE Sec. 25-5s-17e.
Drlg. 271 ft.; (rotary).

Toole County

Only one completion was made in the Kevin-Sunburst Field. The New Era Fuel Co.'s No. 2 Halter, NE NW NE Section 21-35-2w, made 60 bbls. naturally the first 24 hours at 1,543 feet, total depth.

A. C. Crumley's No. 7 Shaw, NE NE SE Sec. 35-36n-2w.
Drlg. 302 ft.

Cassidy and Cassidy's No. 1 Veitch, 220 ft. W of E line, 660 ft. N of S line, Sec. 31-35n-2w.
Drlg. 1,573 ft.

Coolidge & Coolidge's No. 3 Government, 1,980 ft. N of S line and 1,100 ft. W of E line, Sec. 35-36n-2w.
Drlg. 275 ft.

Imperial-Craig Oil Co.'s No. 17 Bloom, Sec. 19-35n-1w.
Drlg. 515 ft.

Fred R. Mauger's No. 1 Government, SW NE NW Sec. 13-35-2w.
Moving in material.

Monopeg Oil, Ltd.'s No. 3 Dipple, S SW NW Sec. 28-35-1w.
Sidetracked tools 1,335 ft.

Mon-Tex Pet. Co.'s No. 1 fee, NW SW Sec. 27-34-1w.
Drlg. 1,700 ft.

Potlach O. & R. Co.'s No. 7 fee, 2,440 ft. from E line and 2,200 ft. from S line, Sec. 21-34n-1w.
Drlg. 680 ft.

M.P.F. Co.'s No. 7 McGowan, SE SE SE Sec. 8-35n-2w.
Drlg. 350 ft. (formerly Montana Power Gas).

Nepstead - Montgomery - Farther's No. 1 Grass, 660 ft. W of E line and 220 ft. N of S line, Sec. 17-35n-1w.
Rig on location.

Pfabe & Engleking's No. 9 Government, NW SW SE Sec. 19-35n-2w.
Drlg. 1,220 ft.

E. O. Reickhorr's No. 2 Government, SW SW NE Sec. 3-35-3w.
Drlg. 1,000 ft.

C. Leonard Smith's No. 1 Eckhoff, C SE Sec. 6-33n-2e.
S.D. 575 ft. for new boiler.

C. Leonard Smith's No. 1 Federal Land Bank, C NE SE Sec. 11-33n-1e.
Spudding at 175 ft.

C. Leonard Smith's No. 1 L. Halverson, C NE SE Sec. 18-33n-2e.
Drlg. 730 ft.; tested 500,000 ft. of gas at 720 ft.

C. Leonard Smith's No. 1 H. Halverson, NW NE Sec. 18-33n-2e.
Drlg. 410 ft. with Star machine.

UTAH

Grand County

Columbia Crude Co.'s No. 1 Balsey, SW SE Sec. 12-25s-20e.
Drlg. 215 ft.

Utah Southern Oil Co.'s No. 1 Hyde, SE NW NW Sec. 3-22s-22e.
Spudding in 15½-in. hole.

Summit County

Longwell Pet. Co.'s No. 1, SE SW SE Sec. 35-3n-5e.
Resuming at 850 ft.; trying to U.R. 10-in. to bottom to shut off wtr.

Utah County

Diamond Oil Co.'s No. 4 Government, CSL SE NW Sec. 16-8s-5e.
Drlg. 2,795 ft.

Washington County

Arrowhead Pet. Co.'s No. 2 Escalante, NW NW NE Sec. 19-42-15.
T.D. 4,114 ft.; P.B. to 3,250 ft.; shot and C.O.

Arrowhead Pet. Co.'s No. 1-A, SE SW NE Sec. 1-42-15.
Drlg. 1,665 ft.

Anna V. Toney's No. 1 Toney, CNL NE SE Sec. 32-40s-11w.
Drlg. 370 ft.; (first report).

W. W. Toney's No. 1 Government, CNL SE SW Sec. 18-41s-12w.
Drlg. 185 ft.; (first report).

SOUTH DAKOTA

Louis Gokel and others' No. 1, C SW NW Section 1-6s-1e, Pass Creek district, Custer County, is drilling at 860 feet. Lakota Development Co.'s (Hollingsworth and others) No. 1 Knude, SE SE Section 20-10s-4e, Shiloh district, Fall River County, shut off water at 3,300 feet with the 8¼-inch and is drilling at 3,320 feet.

Texas and Louisiana Gulf

By
F. L. SINGLETON

ANAHUAC OUTPOST RUNNING LOW, LOOKS LIKE A DRY HOLE

HOUSTON, Tex., Sept. 16.—Attention on the Gulf Coast at the close of the week was centered on C. B. Bunte's No. 1 Simon, an outpost test located approximately 6 miles northeast of production in the Anahuac Field, northern Chambers County, which is coring below 7,045 feet with no shows of oil or gas being reported. Based on the Marginulina topped at 6,908 feet, it is running approximately 168 feet lower than Mason and McCarthy's No. 1 White, the nearest producer in the north end of the field and at its present depth it has the appearance of making a dry hole unless it picks up a deeper sand. The White test topped the oil sand at 6,926 feet and is producing from a depth of 7,054 feet. Location is in Section 33, T.&N.O. Survey.

Gulf Production Co.'s No. 1 Knowles, an east offset to the McCarthy well which seemed assured last week of making a producer, has apparently established the existence of a fault between it and the McCarthy well, as it is coring in shale below 6,927 feet with no shows of oil or gas being reported and also appears to be a dry hole. The Discorbis was encountered from 6,099-6,129 feet. Heterostegina from 6,530-60 feet and the Marginulina from 6,850-53 feet. Correlated on the latter marker it is approximately 113 feet lower than the McCarthy producers. While the well may be abandoned it will not condemn the entire area as this same condition was found to exist in the south part of the field when Humble Oil & Refining Co. abandoned one of its wells, that is located between two dry holes.

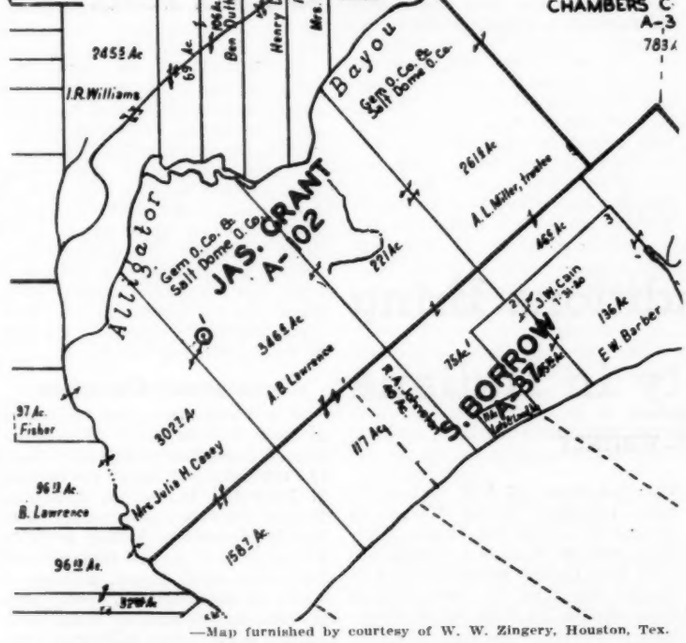
Humble Controls Field

Humble Oil & Refining Co. which has been buying additional acreage in the field, since the completion of the McCarthy well, extended production out of the company's original block, purchased two more large blocks of leases which practically gives it control of the entire field. Northeast of the north extension area the company purchased 1,025 acres lying in Sections 40 and 41 of the H.&T.C. Survey and Sections 41 and 42 of the T.&N.O. Survey. The purchase was made from Texas Gulf Producing Co., Fohs Oil Co., Josey Interest and Bunte and others. The consideration was reported to have been $200,000 in cash and $500,000 in oil to be paid out of one-fourth of the production and a forty-eighth override to be paid when the oil payment is exhausted. The other purchase was made from Mason and McCarthy for a half interest in the east 462 acres of the 978-acre lease held by the operators. The consideration was $300,000 in cash and the company has agreed to drill 22 free wells which will take care of all the 20-acre drilling units on the property.

South Houston Field

At the South Houston Field, Harris County, Stanolind Oil & Gas Co.'s No. 1 Gibson, approximately 1,100 feet northwest of the discovery well in Block 41, opened another producing horizon when it was completed at a total depth of 4,030 feet for an initial production of 18 bbls. per hour through a one-quarter inch choke with tubing pressure 485 pounds and casing pressure 100 pounds. Oil sand was cored from 4,029-38 feet and from 4,054-57 feet. Seven-inch casing was cemented at 3,994 feet. It is by far the best well to be completed in the field. Another test drilled by the company is bottomed in the same sand at 4,062 feet and is waiting for cement to set after 7-inch casing had been cemented at 4,017 feet. It is No. 1 F. J. Burkey, approximately 3,500 feet northwest of the discovery well in Block 105, north of the discovery well and out of the townsite. The company's No. 1 First National Bank about a mile north was recompleted at a total depth of 4,753 feet for an initial production of 155 bbls. in 24 hours through a three-eighths inch choke with no pressure on the tubing or casing. It was originally completed at a depth of 4,698 feet.

The Railroad Commission amended the spacing rule for wells to be drilled outside of South Houston townsite. The wells are to be spaced 417 feet from the property line and 834 feet between wells. This conforms with drilling units established by the city ordinance within the townsite, which permits one well to be drilled on 16 and a fraction acres.



—Map furnished by courtesy of W. W. Zingery, Houston, Tex.

Cotton Lake district on north end of Galveston Bay in northwestern Chambers County, showing location of Salt Dome Oil Co.'s No. 1 Lawrence drilled jointly with Fohs, Gem and Humble companies

Dickinson Field

A new sand has apparently been found at the Dickinson Field, Galveston County, by the showings being made by Humble Oil & Refining Co.'s No. 1 Bayou Development Co. It topped the sand at 9,065 feet and was cored to 9,085 feet, the total depth. On a drill stem test from 8,983-9,080 feet through a one-quarter inch choke on top and bottom, it tested 150 pounds of pressure, 5 thribbles of drilling mud and 49 thribbles of clean oil. The operators made an electrical coring test of the hole and cemented 7-inch casing at 9,069 feet. The company's No. 2 Maco Stewart tested this sand a few weeks ago and showed for a distillate producer. Location is in the John Sellers Survey, a south offset to the deep Danielson producer. The company's No. 1 Magle in the J. S. Jones Survey, encountered an oil showing from 8,062-95 feet, but is coring ahead below 8,101 feet after three drill stem tests failed to develop production.

Stanolind Oil & Gas Co.'s No. 3 Grote, located in the middle of the Hastings Field, northeastern Brazoria County, which had the appearance of opening up a shallow gas sand bottomed at 2,906 feet, was tested during the week and flowed 75 bbls. of salt water per day through a one-quarter inch choke with tubing pressure 1,025 pounds and casing pressure 1,050 pounds. The screen and liner is being pulled and the operators will plug back. Two producers and two new locations were made in the field. Stanolind Oil & Gas Co. completed No. 2 Wooster and No. 3 Wooster for average wells. Both are located in the north part of the field. Locations were made for No. 3 Drake and No. 2 Ford.

Skelly Oil Co. is preparing to test its No. 3 Cobb in the Van Vleck Field, Matagorda County, that is bottomed at 9,000 feet. Late in the week the operators were reaming to run 7-inch casing. Location is 2,295 feet northeast of the discovery well, a distillate producer bottomed at 7,043 feet. Southwest of the discovery well about 6,000 feet, the company's No. 1 Turner is drilling in shale below 6,850 feet.

Southwest of the Coletto Creek Field, Victoria County, the Texas Co.'s No. 1 J. J. Warden in the Edward McDonough League, encountered another sand from 5,502-5,512 feet and on a nine-minute drill stem test from 5,502-12 feet, it tested 15 pounds of working pressure and 1,250 feet of oil and salt water, 25 per cent of which was oil and 400 feet salt water. It was drilled to 5,629 feet at which depth the operators made an electrical coring test of the hole and are now awaiting orders. This is the second sand that has been encountered, the other being from 4,490-4,514 feet.

Wildcat Locations in Louisiana

Of most importance in Coastal Louisiana was the announcement of two wildcat locations, both of which are located on interesting geophysical prospects. Three miles south of Hayes in Jefferson Davis Parish, Shell Petroleum Corp. is reported to have made location for its No. 1 Lacassan on an 8,000-acre block and is moving the rig from Ganada in Jackson County where the company recently opened a new field. The test is to be drilled 990 feet north and 1,980 feet east of the SW cor. Section 20-11s-5w. The Hayes area has been the scene of much leasing and geophysical work for many months, and sev-

eral major companies hold considerable leases in the area. Stanolind Oil & Gas Co. holds approximately 7,500 acres, Gulf Refining Co. owns 700 acres and Humble Oil & Refining Co. has 800 acres.

Southwest of St. Martinsville in St. Martin Parish, Tide Water Oil Co. is building derrick for No. 1 Smedes located 990 feet from the north and east lines of a 1,000-acre tract in Section 57-11s-6w. It is to be a deep test and will be drilled to 9,000 feet if necessary. Location was made after the area had been checked with geophysical instruments.

The third deep producer for the Lafitte Field (Bayou St. Dennis) in Jefferson Parish, was recorded when Texas Co. completed its No. 2 Bayou St. Dennis at a total depth of 9,647 feet for an initial production of 1,800 bbls. per day through a one-quarter inch choke with 1,800 pounds of gas pressure. It is the deepest of the three wells; the others are producing from 9,500-9,600 feet.

Acadia Parish

At the Tepetate Field, Acadia Parish, recently opened up by the Continental Oil Co., the company is rigged up for its third test, being No. 1 Federal Land Bank, located in the C S half NW¼ NW¼ Section 28-7s-2w. The other tests have cemented surface casing. The company's 8-mile pipe line to Millerville on Bayou Nezpique has been completed and the first oil from the field was shipped out by barge the past week.

Northeast of Hiram in the northeast part of Wilkerson County, Mississippi, Charles Green and others have taken a 25,000-acre block and will drill a 5,000-foot test to the Cockfield sand or deeper horizons if necessary. Location was made for the well after the area had been worked with surface geology.

J. G. Sutton of Vinton purchased a 10-acre tract just south of the center of the Edgerly Field in Calcasieu Parish from C. M. Crotty of El Dorado, Ark., for $4,200. The tract is known as the Old Victory lease. The lease was sold to Crotty in 1924 and had several shallow wells on it at that time. At the present time there is only one well. The lease is near the No. 2 Brigh Penn well which was brought in by Sutton and Avery in 1912 for the first producer for the field. Two rigs were included in the deal which will be used in working over two old wells which are bottomed at 4,200 feet. A heavier rig will also be moved in for a deep test as no deep test has been drilled on the lease.

Central West

Improved Conditions Bring Rising Activity in Indiana

By GEORGE A. WHITNEY

FINDLAY, Ohio, Sept. 16.—The Indiana oil field is being more closely watched, and activity is increasing there as a result of slightly better market conditions, with more money available for development work. Extension of natural gas pipe lines, along with the necessity of supplementing the existing gas supply, has caused increased drilling for gas.

Sixteen completions were reported in the last week. The only oil well was the Petroleum Exploration Co.'s No. 7 on the Lorenz Balback farm, Section 25, Carter Township, Spencer County. Nos. 6 and 8 on the same farm were dry holes. Chester Oil Co. is drilling a test on the W. S. Strong farm, Section 33, same township. In Hupp Township, Section 11, F. F. Seitz is drilling No. 4 on the Arthur Ray farm. In Anderson Township, V. S. Hollingsworth's No. 1 on the John Heinze farm, Section 6, was a dry hole at 622 feet.

In Gibson County the Indiana Southwestern Gas Corp.'s No. 1 on the Carl C. Wallace farm, NE SE Section 17, Washington Township, was a dry hole at 411 feet. The same corporation's No. 2 on the Louisville Joint Stock Land Bank is a gas well at 435 feet. Big Four Oil & Gas Co. is drilling No. 9 on the C. T. Sloan farm, NE SW Section 18, Washington Township, and W. C. McBride & Co. are drilling No. 1 on the Nannie Quiggins farm, SE NW Section 18, same township. Robert Watson is drilling No. 3 on the Laura Dillon farm, Section 18, same township.

In Pike County Robert Watson is drilling No. 3 on the Laura Dillon farm, Section 18, Washington Township. Midwest Development Corp. is drilling No. 1 on the Ellis and Jesse Gray farm, Section 18, same township, and the Indiana Southwestern Corp. is drilling No. 1 on the William D. Brenton farm, same section. In Jefferson Township C. M. Amsler's No. 1 on the Lydia Traylor farm, Section 18, same county, is a dry hole. Dr. C. C. Taliaferro, Jr., is drilling No. 1 on the Charles and Francis Carlisle farm, Section 10, Jefferson Township.

Lima Field

The Lima Field failed to bring in any new wells for the week. In Hardin County T. E. George & Co. are drilling No. 1 on the Bert L. Thompson farm, Section 15, Goshen Township. In the Tiffin Field of Seneca County there are four wells under way, with additional development expected. In Liberty Township the Tiffin Industrial Gas Co. is drilling No. 1 on the L. Hoover farm, Section 4, Hopewell Township, and J. L. Barrett is drilling No. 1 on the T. N. Ensil farm, Section 1, same township. Harpester & Donnell are drilling No. 2 on the Nicholas Webber farm, Section 34, Liberty Township, and R. E. Greene is drilling No. 3 on the T. C. and B. G. Schaull farm, Section 30, same township.

CENTRAL OHIO

In Stark County the Ohio Fuel Gas Co.'s No. 2 on the D. & M. Braucher farm, Section 10, Jackson Township, is a fair gas well at 4,355 feet. The same company is drilling No. 1 on the C. and E. Whetstone farm, same township; No. 1 on the J. and S. Holtzbak farm, Section 4, same township, and No. 3 on the Eliza Harmont farm, Section 27, same township. The company has a location staked for a test on the George E. Deuble farm, Section 2, same township. Lyons & Co. are drilling No. 1 on the Homer E. Snyder farm, Section 11, same township. Wiser Oil Co. is drilling No. 1 on the Ralph Shaffer & Co.'s farm, Section 5, Pike Township.

KENTUCKY

The Cured Egg Oil Co. is drilling No. 2 on the John Smith farm, Hancock County.

In Henderson County the Imperial Oil & Gas Products Co.'s No. 6 produced 9 bbls. initially.

In McLean County the Ohio Oil Co.'s No. 5 on the George B. McManama farm, in the Vicinity of Calhoun, produced an initial of 38 bbls.

Completions and Operations in New York-Pennsylvania Gas Field

By R. C. CONINE

COUDERSPORT, Pa., Sept. 16.—While several tests drilling in the Oriskany gas sand area of New York and Pennsylvania encountered a show during the week ending September 15, good completions were absent from the list for the first time in more than a month. Godfrey L. Cabot got a duster on the Robert R. Lewis farm, Allegany Township, Potter County, and abandoned at a depth of 5,225 feet. Electro-Geometer Corp. abandoned its location on the Armstrong-Forest Co. property, Norwich Township, McKean County.

Pennsylvania Operations

Barker and others are shut down at 2,000 feet on the U. B. Russell farm, Genesee Township, Potter County. Schrack and others were drilling at 5,517 feet on its No. 3 Tassell, Hebron Township, same county. Godfrey L. Cabot was drilling at 2,970 feet on the A. G. Lyman farm, Ulysses Township, same county, and got a duster on the Robert R. Lewis farm in Allegany Township. Penn York Natural Gas Co. was drilling at 5,234 feet on the William Cobb farm, Allegany Township, same county, after getting the top of the Oriskany at 5,231 feet where a gas pocket was encountered and the flow gauged at 500,000 feet a day. Potter Development Co. hit a gas pocket at 5,153 feet in its test on the Frank Robbins farm, Bingham Township, same county.

New York State Natural Gas Co. was cementing casing at 5,237 feet on the Annett Bishop farm, Allegany Township, Potter County. Godfrey L. Cabot was building a road and moving in on the Duke estate, Genesee Township, same county. Sylvania Corp. was drilling at 4,200 feet on the No. 4 Z. L. James, Allegany Township, same county.

The deep test projected on the Gertrude Scott farm, South Shenango Township, Crawford County, by Carnegie Natural Gas Co., was down 2,120 feet in brown shale. In Tioga County, Lawrence Township, Penn United was preparing to shoot at a depth of 3,803 feet on the C. Wainwright farm. In this test the Onondaga was reached at 3,705 feet, and the Oriskany at 3,725-83 feet. The last gas, at 3,727 feet, gauged 225,000 feet a day. New York State Natural Gas Co. was rigging up on the Stahle farm, Clymer Township, Tioga County.

New York Operations

Angelo Cisco and others were shut down at 2,000 feet on the N. B. Phelps farm, Addison Township, Steuben County. Syracuse Alliance Co. was shut down at 3,600 feet on the Evans farm, Tyre Township, Cattaraugus County. Wright-Reed and others were shut down at 1,015 feet on the James Neilson farm, Thurston Township, Steuben County. Trumbull Co. was drilling at 1,510 feet on the W. B. Lasher farm, Throop Township, Cayuga County. Wyoming Oil & Gas Co. was shut down at 1,783 feet on the C. H. Cullings farm, York Township, Livingston County. Southwest Development Co. was shut down at 4,429 feet on the T. Moran farm, Alma Township, Allegany County, after getting a show of gas 1 foot in the Oriskany.

Hanley & Bird were drilling at 200 feet on the Monroe Ackley farm, Greenwood Township, Steuben County. Tom Cabot, Inc., was drilling at 1,720 feet on the Alice Cunningham farm, Willing Township, Allegany County. Shem company was drilling at 970 feet on the Dora Barber farm, same township and county. Becker and others were drilling at 1,830 feet on the William Burns farm, Alma Township, same county. John Seton and others were shut down on the M. Youskiewicz farm, Rome Township, Oneida County. Godfrey L. Cabot was rigging up on the Monihan farm, Willing Township, Allegany County. Cunningham Natural Gas Co. was drilling at 1,793 feet on its No. 2 Regan, same township and county. Godfrey L. Cabot was spudding at 110 feet on its No. 2 Murray estate, Belfast Township, same county. Hungiville and others were drilling at 1,710 feet on the Putman farm, Urbana Township, Steuben County. Wyoga & Schrack were drilling at 525 feet on the Estee farm, Charlotte Township, Chautauqua County.

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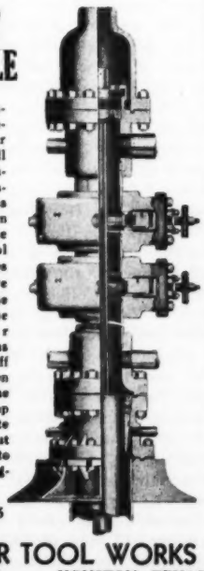

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Among Gulf Coast Drilling Contractors

Frank Long, who started up recently after a shutdown on a 6,500-foot wildcat test for W. T. Daniels and others in Willacy County, is drilling below 5,300 feet. His second rig, drilling at Shepherd's Mott for the Smith Corp., is drilling below 8,400 feet where several gas shows have been encountered.

L. W. Capps is drilling below 5,900 feet on a well for Crown Central Petroleum Corp. at Port Lavaca; has finally managed to haul fuel oil over water-logged roads to location on a well for the Mid-Tex Oil Co. near Willis, Montgomery County, and is drilling below 3,600 feet; and is drilling below 1,500 feet on a well for H. M. Naylor near Jennings, La.

Talbot Drilling Co. is drilling below 3,640 feet in shale on a well for Ellis Arline and others at Conroe, and has abandoned a hole for Donday Oil Co. and another for Delta Land & Lumber Co.

C. & C. Drilling Co. is drilling below 3,500 feet on No. 7 Davis Holmes for the Gem Oil Co. in the Livingston Field, Polk County. Rig in the Dickinson Field, Galveston County, for the Coastal Oil Co. is still waiting on orders.

W. V. (Bill) Bowles is drilling below 4,000 feet on a well for the Texas Co. in the Manvel Field, Brazoria County, and is rigging up to drill a test for the same operators to 4,900 feet in the Batson Field, Hardin County.

Jeff Hooper is drilling ahead on a "tight" well for Navarro Oil Co., 12 miles north of Wharton in Wharton County, and has made a drill stem test on a well for the American Liberty Oil Co. in the Coletto Creek Field which fielded 15 stands of oil in 20 minutes, indicating a good completion for the field.

Anderson, Kerr & DeArman have drilled 6¾-inch hole to 4,715 feet on a well for themselves and others in the Pierce Junction Field, Harris County, after successfully sidetracking the stub end of a fish, and are planning to test sand at once.

Edwards Drilling Co. has drilled to a total depth of 8,480 feet on a well for the Pure Oil Co. in the Dickinson Field, Galveston County, and is waiting on orders before proceeding. Same contractors are drilling below 7,000 feet on a well for the Jefferson Lake Oil Co. near Abbeyville, La., and is drilling below 3,000 feet on a well for the Woodley Petroleum Co. in the Anahuac Field, Chambers County.

Rowan Drilling Co. has contract to drill a wildcat test on the Cotton Lake Prospect, Chambers County, north shore of Galveston Bay, for the Salt Dome Oil Co., Gem Oil Co., Fohs Oil Co. and the Humble Oil & Refining Co. This is considered one of the hottest wildcats started in the Gulf Coast in recent months.

Jeff Hooper has set 400 feet of surface pipe in a well for Cox & Reed at Coleto Creek; and is drilling below 2,300 feet on a well for Navarro Oil Co. 12 miles north of Wharton, Wharton County.

Rutherford Drilling Co. has two wells drilling for Skelly Oil Co. in the Bay City Field (Van Vleck), being No. 1 Turner and No. 3 Cobb; and one rig running for the same operators in the Samfordyce Field on No. 5 Seabury.

Ben (Bud) Coyle has two rigs running for Fohs Oil Co. in the Gillis, Louisiana, Field, one drilling below 8,000 feet and the other drilling below 6,000 feet.

Smith & McDannald are drilling below 7,300 feet on a well for Shell Petroleum Corp. at Louise, Wharton County; have cemented 7-inch pipe in No. 3 Grote for Stanolind Oil & Gas Co. at Hastings; have completed No. 2 Gibson for the same operators in the South Houston Field; have set surface pipe in No. 1 Johnson for Tide Water and Texas Seaboard Oil companies at Cayuga; are testing No. 1 Goode for the same operators in the same field; are drilling below 3,000 feet on No. 1-B Garrett for Pure Oil Co. at Louise; are still working over No. 2 Weaver for the same operators in the same field; are drilling below 3,000 feet at Big Hill, Chambers County, in a well for the Stanolind; and are waiting on derrick for a deep test for the same operators at St. Martinsville, La.

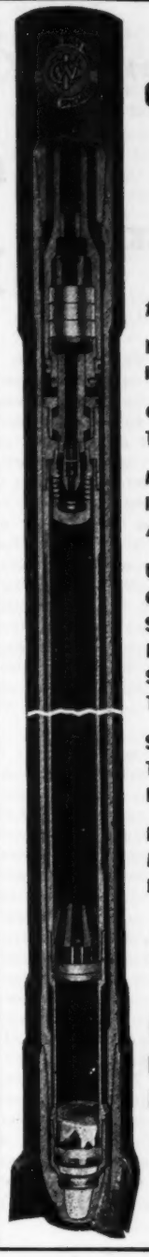
Al Buchanan, San Antonio drilling contractor, has completed the Buchanan & Blanco No. 2-B Ruiz in the Loma Novio Field and is now drilling a water well preparatory to spudding in the No. 1 Welder for the same company in the Seven Sisters Field. Both fields are located in Duval County. The Mid-Continent's No. 1 Serna, also in the Seven Sisters Field, is spudded in.

In the Plymouth Field of San Patricio County, Al Buchanan completed the No. 11-C Welder for the Plymouth Oil Co. and is reconditioning the 10-C Welder which came in a gasser. They are moving in on two new locations in this field, Plymouth Oil Co.'s No. 15-C and 16-C Welder. The wildcat, Stanolind Oil & Gas Co.'s Farmers Life, in northern Duval County, is being killed to rework. It jetted considerable oil last week.

The Trinity Drillers, Inc., of San Antonio are drilling a new deep test in the Escobas Field of Zapata County for the S.R.C. Oil Corp. It is located on the Trevino lease in Survey 66. The Rogers Oil & Gas Co.'s No. 1 Hoffman in the Hoffman Field, Duval County, promises to make a big gasser and will be blown this weekend. The Continental Oil Co.'s No. 6-A Sevier in the Driscoll Field is spudded in. Recent rains have hampered drilling operations throughout Southwest Texas.

Anderson, Kerr and DeArman are drilling below 4,700 feet on a well for H. C. Cockburn, Continental Oil Co. and the contractors; and are fishing on a well for themselves at Pierce Junction.

San Patricio County has completed a well for Skelly Oil Co. in the Cayuga Field, and is moving rig to drill another location for the same operators.



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California Field Report

By
L. P. STOCKMAN

GOOD WELLS IN MT. POSO AND IN MOUNTAIN VIEW DISTRICTS

LOS ANGELES, Calif., Sept. 16.—Two new wells and one recompletion were chalked up in the Mountain View Field of Kern County last week. Barnsdall Oil Co. finished an excellent producer on the Morris lease in Section 32-30-29 when No. 4 was brought in flowing 3,405 bbls. of 31.1 gravity oil and 790,000 feet of gas daily. This well was completed at 5,801 feet with a 7-inch water string landed at 5,533 feet and finished with a 5-inch liner, including 271 feet of perforated and 5,460 feet of 2-inch tubing. Barnsdall has finished four exceptionally large producers on this lease and is rigging up No. 5 Morris preparatory to an early spud.

Standard Oil Co. completed No. 5 Wible in Section 23-30-28, bottomed at 5,435 feet and flowing 1,720 bbls. of 27.7 gravity oil and 1,220,000 feet of gas daily. E. G. Starr recompleted his No. 1 Wells after redrilling and deepening the hole to 5,948 feet, and returned it to production flowing 1,491 bbls. of 26.2 gravity oil and 900,000 feet of gas. Mohawk Petroleum Co., which has finished several substantial producers in the Mountain View Field, is swabbing its newest one, No. 5 Clendennen, which was finished at 5,918 feet with 6⅝-inch liner carrying perforations at 5,435-5,635 feet and at 5,730-5,918 feet. Union Oil Co. apparently has given up the attempt to develop commercial production in the Temblor in No. 4 Wible, as this hole has been plugged back from 7,627 feet to 5,452 feet and the 8⅝-inch perforated at 5,332-47 feet.

Mount Poso

The Texas Co. and Shell each finished a new producer in the Mount Poso Field of Kern County, and the former is building rig for a new project. Shell Oil Co.'s No. 2 Vedder-Rail was brought in pumping 649 bbls. of 16.5 gravity oil daily from 1,845 feet following completion with an 8⅝-inch water string landed and cemented at 1,812 feet. No. 7 Vedder of the Texas Co., in Section 4-27-28, registered an initial daily production of 545 bbls. of 16.1 gravity oil from 1,635 feet. Two additional potential producers are expected to be completed in the Round Mountain Field within the next fortnight as Honolulu Oil Corp.'s No. 78 in Section 18-28-29 and Shell Oil Co.'s No. 1-2 Olcese in Section 17-28-29 are nearing the pay.

Drilling operations in the Midway-Sunset Field of Kern County are showing a remarkable increase after a long period of inactivity, and this field is expected to continue active during the next several months. New rigs have been erected or locations staked for Richfield Oil Co.'s No. 10 Maricopa in Section 36-12-24, Standard Oil Co.'s No. 29-3-D in Section 3-32-24, Pan American's No. 64 Buena fee in Section 22-32-23, Hallmark Oil Co.'s No. 3 Maricopa in Section 25-12-23, and Nos. 12-2, 12-5, 14-41 and 14-50 of the Honolulu Oil Corp. E. A. Alford completed a new well in Section 25-12-24, his No. 1 pumping 376 bbls. of 23.8 oil daily from 2,547 feet after the hole had been finished with an 8⅝-inch water string landed at 2,405 feet and a 6⅝-inch liner, including 134 feet of perforated. Pan American's No. 65 Buena fee in Section 22-32-23 was completed at 719 feet and brought in pumping 41 bbls. of 14.1 gravity oil daily. This well has a 10¾-inch water string landed and cemented at 460 feet, and the hole was finished with an 8⅝-inch liner, including 254 feet of perforated. General Petroleum is reaming No. 110 Moco preparatory to landing the water string, and this well, which picked up the pay at 2,143 feet, should be completed shortly. No. 121-15-D of the Standard, in Section 15-32-24, and No. 17-21 of the Chanslor Canfield-Midway Oil Co., in Section 21-32-23, should be tanking oil soon.

Long Beach

Nothwithstanding the abandonment of many producing wells in the Long Beach Field owing to litigation, operators are pursuing an aggressive drilling campaign in that field. This development work resulted in completion of four new wells and one recompletion during the current week. No. 1 Feldman of Southern States Oil Co. was brought in pumping 301 bbls. of 24.9 gravity oil daily after it had been plugged back from 4,370 feet to 3,906 feet. Jahns Oil Co.'s No. 1 Signal, a new well, was completed pumping 220 bbls. of 24.9 gravity oil from 3,675 feet after the hole had been finished with a 6⅝-inch water string landed at 3,410 feet, and a 4¾-inch liner, including 262 feet of perforated. General Petroleum's No. 7 Boyle-Perry was somewhat of a disappointment after being plugged back to 2,790 feet, as it was good for only 161 bbls. of 25.2 gravity oil cutting 36 per cent. No. 1 Long Beach of Great States Oil Co., completed at 4,135 feet, was brought in pumping 239 bbls. of 25.8 gravity oil. W. O. Dye, who is abandoning his No. 1 Randall in the Long Beach Field, completed his No. 4 Signal in this field pumping 161 bbls. of 26.6 gravity oil initially from 4,558 feet, following completion with a 7-inch water string landed and cemented at 4,010 feet.

Standard Oil Co., which is developing the Cone and Rubel leases of the Shell and K. & I. in the Inglewood Field, has completed No. 20 Rubel in the lower zone, and this new well, bottomed at 3,250 feet and finished with a 6⅝-inch liner carrying 619 feet of perforated, was brought in flowing 504 bbls. of 30.8 gravity oil daily. For its own account, Standard is building rig for No. 77 on the Los Angeles Investment lease, and drilling operations should get under way within the next 15 days. In the Huntington Beach Field of Los Angeles Basin, Associated Oil Co. has recompleted No. 5 Pearce after redrilling and deepening the hole to 4,484 feet. This well has been returned to production pumping 68 bbls. of 22.5 gravity oil, which shows a cut of approximately 20 per cent.

Montebello

The several tests under way in the eastern extension of the Montebello Field of Los Angeles Basin are nearing the depth at which the pay should be encountered, and something definite regarding the extent of this structure should be forthcoming within the next fortnight. Drilling operations up to the present indicate the existence of a faulted section, and for this reason it has been practically impossible to correlate wells accurately. Universal Consolidated's No. 2 Nutt is still flowing a little better than 700 bbls. of 39.6 gravity oil and 825,000 feet of gas daily from the Nutt zone at 5,503 feet. Other wells in this area are already deeper than No. 2 Nutt, and have not yet picked up the pay. Wilshire Oil Co. has cored some oil sand in No. 1 Afheldt at 5,575 feet, and this well may receive an early production test. The Texas Co.'s No. 1 Whittier, on the other hand, has not yet cored a single favorable indication, notwithstanding the bit has already passed the 6,700-foot level. Three other wells in this district should reach a depth comparable with that of No. 2 Nutt within the next two weeks.

Union Oil Co. completed No. 12 Vidor in the Playa Del Rey Field of Los Angeles Basin, bringing it in pumping 384 bbls. of 23.1 gravity oil daily from 6,325 feet. Union is drilling one other well in this field and has a new rig going up for No. 13 Vidor, which will be spudded in at an early date. Mathews Petroleum Co.'s No. 1 Milham, in the extreme eastern end of the southeastern extension of the Playa Del Rey Field, flowed hot salt water on a recent test from 6,543 feet and will probably be abandoned. In the Dominguez Field of Los Angeles Basin, where Union and Shell are drilling several potential producers, the former has completed No. 40 Callender, pumping 170 bbls. of 29.3 gravity oil daily from 4,410 feet. Union has landed a string of 8⅝-inch in No. 7 Carson at 7,040 feet, and this Miocene test will be ready for a production test within a few days. The company finished two new wells in the Santa Fe Springs Field during the week and should have others ready for production tests within 60 days. Its No. 87 Bell, bottomed at 3,727 feet, was brought in doing 412 bbls. of 32.3 gravity oil daily, and No. 88 Bell, another new well, was completed pumping 81 bbls. of 34.1 gravity oil from 4,525 feet. In

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TANKER SHIPMENTS FROM LOS ANGELES TO DOMESTIC AND FOREIGN PORTS

	Sept. 1		August 25			
Intercoastal-domestic—	Total this week	Daily average	Total last week	Daily average	This year to date	Same time last year
Fuel oil	.....	.....	.....	.....	.....	9,812,064
Diesel and gas oil	.....	.....	.....	.....	527,098	1,021,175
Gasoline	305,024	43,575	238,054	34,008	5,510,836	5,242,603
Kerosene	.....	.....	.....	.....	753,457	654,011
Asphalt	.....	.....	.....	.....	.....	70,019
Other finished oil	.....	.....	.....	.....	.....	54,778
Foreign exports—						
Crude oil	447,146	63,878	135,824	19,403	9,243,303	5,369,368
Fuel oil	389,858	55,694	240,497	34,357	8,395,370	8,688,319
Diesel and gas oil	119,134	17,019	195,427	27,918	3,168,622	2,939,031
Gasoline	206,236	29,448	341,614	48,802	4,669,771	2,951,931
Kerosene	.....	.....	.....	.....	850,953	1,274,206
Other finished oil	.....	.....	.....	.....	.....	3,529
Other unfinished oil	.....	.....	.....	.....	99,847	210,500
Coastwise-domestic—						
Crude oil	141,544	20,221	156,821	22,403	3,805,642	5,834,340
Fuel oil	331,131	47,304	152,890	21,841	6,578,254	6,177,402
Diesel and gas oil	8,761	1,252	.....	.....	622,928	517,567
Gasoline	243,359	34,766	179,393	25,628	7,717,652	8,838,893
Kerosene	.....	.....	11,054	1,579	140,436	109,662

TANKER SHIPMENTS FROM SAN FRANCISCO TO DOMESTIC AND FOREIGN PORTS

Intercoastal-domestic—						
Fuel oil	.....	.....	.....	.....	.....	110,650
Diesel and gas oil	.....	.....	.....	.....	158,152	448,113
Gasoline	.....	.....	.....	.....	.....	290,825
Kerosene	.....	.....	.....	.....	149,715	276,412
Asphalt	.....	.....	.....	.....	420,414	.....
Lubricants	.....	.....	.....	.....	42,007	34,695
Foreign exports—						
Crude oil	.....	.....	158,395	22,628	1,691,544	1,330,081
Fuel oil	19,730	2,819	79,901	11,414	1,510,331	1,472,812
Diesel and gas oil	.....	.....	.....	.....	804,513	1,042,267
Gasoline	.....	.....	103,747	14,821	2,045,085	2,411,704
Kerosene	.....	.....	80,207	11,472	587,495	789,174
Lubricants	.....	.....	.....	.....	152,500	142,167
Other finished oil	.....	.....	.....	.....	.....	2,760
Other unfinished oil	.....	.....	.....	.....	.....	5,750
Coastwise-domestic—						
Fuel oil	64,382	9,197	87,398	12,485	4,538,192	4,051,629
Diesel and gas oil	.....	.....	15,829	2,261	175,932	119,036
Gasoline	137,603	19,658	123,731	17,674	3,151,080	3,413,492
Kerosene	.....	.....	6,605	944	70,639	64,805

the Torrance Field of Los Angeles Basin, the Chanslor Canfield-Midway Oil Co. completed No. 2 Redondo at 3,157 feet, pumping 35 bbls. of 14.1 gravity oil cutting 18 per cent.

Semi-Tropic

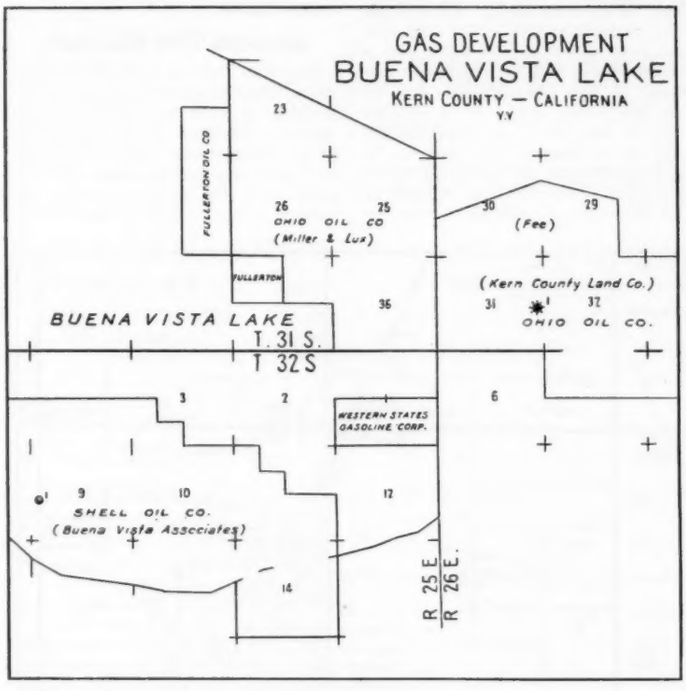
Several wells in the Semi-Tropic gas field of Kern County are getting deep and have taken on a dubious look as far as commercial gas production is concerned, though they might prove up another deeper productive horizon. Standard Oil Co.'s No. 1 Goldman in Section 5-27-23 found the Etchegoin barren, but drilling operations are being continued. Fullerton Oil Co. has abandoned its No. 23 in Section 14-27-23 as a duster at 4,312 feet. Milham Exploration Co.'s No. 26 C.O.C. in Section 15-27-23 proved a disappointment upon completion at 2,385 feet, as it showed an initial daily production of only 1,750,000 feet of gas. This new well, with the 8⅝-inch water string landed and cemented at 2,290 feet, was shut in immediately upon completion and shows a pressure of 1,045 pounds. It appears probable that Standard Oil Co. will complete No. 7-1 K.C.L. as a commercial producer in the forthcoming week, as a formation test looked promising. A formation test of the company's No. 1 Williams in Section 17-27-23 from 3,930 feet showed only gas-cut mud and a light flow of gas. Superior Oil Co. is expected to complete its No. 2-A K.C.L. in Section 34-27-24 within the next 10 days, as it has just topped the productive horizon.

The Buttonwillow gas field of Kern County is showing a slight revival of drilling operations following a suspension of work of several months. Two new wells were completed within the past 30 days, and the Texas Co. is rigging up No. 1 Whiting in Section 8-28-23. Milham Exploration Co. is installing rotary drilling equipment in No. 5 K.C.L. in Section 5-28-23 preparatory to a resumption of work. This well was completed originally in the first gas zone and drilling will be resumed at 2,716 feet. The two gas wells completed at Buttonwillow within the past 30 days were No. 1 Seares of the Texas Co. and Arlington Property Corp.'s No. 12 in Section 6-28-23. The Delano gas field, which has been inactive several months, will show a little activity soon, as Standard is making preparations to drill a test on the Bolz lease in Section 33-24-23. Ohio Oil Co. should be in a position soon to make a further test for commercial gas production in the Beuna Vista Lake gas field of Kern County, as its No. 2-A on the K.C.L. lease in Section 32-31-26 has passed the 5,400-foot level. Shell's wildcat in this area has taken on a rather doubtful aspect at 8,850 feet, failing to find either oil or gas indications. These two wells are located on separate structures and the success or failure of one does not necessarily have any significance concerning the other.

North Belridge

Belridge Oil Co. received a surprise a few days ago when No. 32-35 in Section 35-27-20, blew in flowing approximately 10,000,000 feet of dry gas daily during a water shutoff test on the 9-inch, which had been landed and cemented at 7,973 feet. The bottom of this hole is at 7,978 feet, which indicates that this gas is either coming from 5 feet of formation or from back of the cement job. Two potential producers are nearing completion in the North Belridge Field, and both should be ready for production tests within the next 30 days. Standard Oil Co. is still held up with mechanical trouble in No. 1 United, a deep test under way in the Lost Hills Field of Kern County in Section 2-26-20. The drill pipe froze in this wildcat at 5,824 feet, and the crew is circulating oil in an effort to loosen the fish.

General Petroleum Corp.'s wildcat in the Arvin district of Kern County in Section 1-32-29 is still in land-laid sediments at 7,790 feet and does not look promising, although the company still has a chance of making a conclusive test if it wishes to drill deep enough. There is only 991 feet of 18⅝-inch surface pipe in this hole at present, and it may be found advisable to land a string of casing to prevent the hole from caving if deep drilling is done. J. O. Seeple, who is drilling a wildcat in Section 5-30-24, northwest of the Elk Hills Field of Kern County, is rotating at 5,150 feet in a sandy shale, but has not encountered indications of oil or gas. Continental Oil Co. has abandoned No. 1 Layman, its second wildcat on the McDonald anticline, as a dry hole at 1,783 feet. The Western Gulf Oil Co. completed No. 1 Livezey in the Fruitvale Field of Kern County, which bottomed at 3,952 feet and finished with a 6⅝-inch liner including 174 feet of perforated, was brought in flowing 382 bbls. of 23.5 gravity oil daily. Western Gulf is expected to complete No. 1 Brackenbury in this field within the next 10 days. Its No. 1 Wear is being rigged up.



Edison

Union Oil Co. completed its first producing well in the Edison Field of Kern County when No. 1 Brockman in Section 13-30-29 was brought in pumping 62 bbls. of 18.2 gravity oil a day from 1,234 feet after the hole had been finished with an 8⅝-inch liner carrying 127 feet of perforated. Immediately upon its completion Union spudded in No. 2 Daugherty in Section 14-30-29, and this project will be ready for a production test within the next few days. No. 1 Brockman was completed in the Chanac, and No. 2 Dougherty will likewise be completed in this section of the Pliocene. Berry Oil Co. made a production test on its No. 1 Grayson in Section 10-30-29 after plugging back the hole from 4,288 feet to 1,955 feet, and the well looks good for approximately 200 bbls. of 14.9 gravity oil a day on the beam. The production test was inconclusive, as the well sanded up after pumping approximately eight hours. General Petroleum, which is making preparations to complete No. 2 Nichols in this field, is building a new rig for No. 3 Knapp, projected for early work in Section 24-30-29. Shell Oil Co. has landed a string of 8⅝-inch in No. 2 Cauley in Section 16-30-29, and a pumping test will be made within the next few days.

Kettleman Hills

Three new wells were completed in the Kettleman North Dome Field, and a check of development work under way indicates the probable completion of several additional potential producers within 60 days. Standard Oil Co. completed two of the trio of new wells chalked up during the week by finishing No. 36-19-J and No. 78-7-Q. The former was brought in flowing 2,055 bbls. of 32.9 gravity oil and 5,230,000 feet of gas a day from 8,800 feet, after the hole had been finished with a string of 7-inch carrying perforations at 7,974-8,090 feet, 8,215-8,390 feet and at 8,545-8,766 feet. The well was cemented through perforations at 8,090-8,215 feet and at 8,390-8,545 feet. Standard's No. 78-7-Q, finished in the Elliott, or so-called gas zone, was brought in flowing 878 bbls. of 56.4 gravity oil and 40,300,000 feet of gas a day from 7,780 feet. This new well was finished with a string of 6⅝-inch carrying perforations at 6,332-6,674 feet, 6,749-7,115 feet, 7,199-7,386 feet and at 7,440-7,775 feet, with the blank section cemented at 7,115-7,199 feet.

The Kettleman North Dome Association's No. 81-34-Q proved to be a small well upon completion at 8,110 feet, showing an initial daily production of only 540 bbls. of 41.5 gravity oil and 10,800,000 feet of gas. Both Kenda and Standard have several wells scheduled for early production in the North Dome and are working on others that should be completed at frequent intervals during the rest of the year. Continental Oil Co.'s No. 28-7 Gatchell, in the South Dome of Kettleman Hills in Section 7-25-20, made a short flow in the early part of the week, but the output, approximately 150 bbls., showed a cut of 50 per cent. The oil produced tests 30 gravity and the salt water which accompanied the oil averages 550 grains of salt. The company ran in a water witch, but the result was inconclusive and the company is proceeding with other remedial work. This well is bottomed at 7,424 feet and has string of 5-inch landed and cemented at 7,350 feet. Judging by the rapid rise in the fluid level, 1,700 feet in 28 hours, it appears probable that a tight water shutoff has not been effected.

Model of Oil Growth Planned for Expo.

A model of the petroleum industry including discovery, producing, transporting, refining and marketing of oils which will cover the entire exhibit space in the Scientific and Technical Building at the International Petroleum Exposition, Tulsa, is the goal of the scientific and technical and executive committees.

W. A. Schlueter, president of the Refinery Supply Co., has been reelected to head the scientific and technical committee and is forming plans for developing this exhibit over a number of years.

"We plan on making a fair start by the opening of the ninth exposition in Tulsa, May of next year," said Mr. Schlueter. "This is a task of great magnitude as we plan on the model portraying the history of eacn of the divisions of the industry. For example, in the producing field we will begin with the early methods of scooping oil off top of streams, show the old springpole method and develop each sequence down to the modern rotary methods. Each division will be developed in the same manner. A permanent exhibit record of the development of the industry will be kept in one place and should attract thousands of visitors."

Mr. Schlueter asked that firms having models of any phase of the industry which they no longer had use for, write him if they are willing to place the models in the exposition exhibit.

W. B. Way, general manager, said that practically all space will be sold out by October. "The option to past exhibitors expired on September 15 and new exhibitors may now obtain space and old ones may contract for increased space," said. Mr. Way.

To Tour Ouachitas

SHREVEPORT, La., Sept. 10.—C. L. Moody, president of the Shreveport Geological Society, announced that the society will tour the Ouachita Mountains in Oklahoma this year in its annual field trip to be held October 4 to 6. Hugh D. Miser of the U. S. Geological Survey will accompany the tour.

North Louisiana, Arkansas

WATER AND GAS TROUBLE IN TWO RODESSA COMPLETIONS

By
J. R. CRUMPTON

SHREVEPORT, La., Sept. 16.—A frenzied rush for first production in the newly discovered oil pool in the Rodessa Field, northwestern Caddo Parish, very nearly caused disastrous results for two wells on test during the past week. As it now stands, the mistakes committed are being corrected and both tests are practically assured of being as large or larger producers than the two previous wells completed.

Haynes Production Co.'s No. 1 Harry Otwell, 660 feet north and 560 feet west of SE cor. Section 15-23-16, topped the oil bearing Oolitic lime of the Glen Rose at 5,981 feet and tested from a total depth of 6,081 feet. When turned into the tank through 2-inch choke on tubing the well flowed at the rate of 200 bbls. per hour, was then opened up through 2-inch choke on casing and tubing closed and flowing at the rate of 500 bbls. per hour. The well was brought in at 12 o'clock noon Wednesday, September 11, and at 4 o'clock in the afternoon showed a small amount of water while still flowing at the rate of 500 bbls. per hour, finally showing 4½ per cent of water at 5 p.m. When cut to 200 bbls. per hour, the water increased to 10 per cent and was decreased to 5 per cent at 85 bbls. per hour.

The presence of water is easily explainable. The crew made from 40 to 50 feet too much hole, evidently losing two joints of pipe in counting the measurement. Company officials had left definite orders to drill to a total depth of 6,040 feet for the test. The well has been killed and the hole will be cemented back from 40 to 50 feet, and it is the prediction of all operators in the field that it will be as good or better than Haynes' No. 1 Lawton completed last week flowing 525 bbls. per hour from 6,052 feet. The Otwell well is one-half mile southwest of the Lawton gusher.

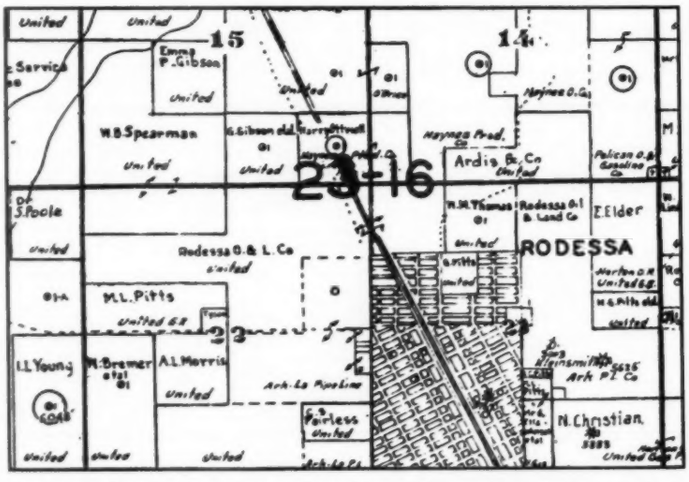
Gas Not Shut Off

Pelican Oil & Gasoline Co.'s No. 1 Sexton, 660 feet south and west of the NE cor. SE Section 14-23-16, was the second well on test to encounter trouble. The oil bearing lime was contacted at 5,985 feet and a full string of 7-inch casing with perforated at bottom was run into the hole. The casing stuck 50 feet off bottom and was cemented there, spotting the casing seat at 5,935 feet. After drilling plug and drilling to a total depth of 6,035 feet, 90 feet of liner was set, 70 feet perforated and 20 feet blank. The well was washed in from the total depth of 6,035 feet and the first few minutes of production was oil, turning soon to a giant gas well, estimated from 60,000,000 to 80,000,000 feet with only a spray of oil. The gas blew from casing with 4-inch lead line and was burned. With two lead lines from tubing on 1-inch choke going through separator, the well made about 1 foot of oil in the storage tank in five hours. The well has been killed to pull liner, and a string of 5⅞-inch casing will be set about 35 feet off bottom to cut off the gas strata above. It is possible that the hole will be deepened farther into the oil bearing lime, but in the opinion of many operators this is not necessary. With the large volume of gas above the oil horizon, it was impossible for any oil to flow and with this gas cut off the well should make pipe line oil. The perforated casing and 100 feet of open hole below allowed at least two of the gas bearing horizons to produce above the oil pay.

With a drop of about 90 feet to the mile from the fault line, operators in the field did not expect the water line to be contacted in Haynes Production Co.'s Otwell at 6,081 feet. This was based upon the water level as logged in R. W. Norton's deep test about two years ago on the gas structure to the south. However, there are many operators who believe that the pay horizons are leveling out to the north and that it is possible for the upper and second and third horizons which produce gas to the south toward the fault line to be oil producing horizons farther north after the water line is contacted in the present oil producing lime. The surface elevation on No. 1 Otwell is 228 feet above sea level or a subsea bottom of 5,753 feet. The fact is that the Otwell test penetrated the pay horizon 100 feet while the two previous producers in the field went into the pay lime from 27 to 35 feet, and with this in mind, operators may still extend the width of the field in the vicinity of present drilling operations to its expected potential limits.

Allowable 1,750 Bbls. Daily

The two flowing wells in the Rodessa Field have been put on an allowable of 1,750 bbls. daily by the Minerals Division of the Louisiana State Conservation Department. In all probability this schedule will continue until the field is further developed, but it is rumored that a new schedule is contemplated with a 1,500-bbl. allowable with permission to run 40,000 bbls. of the first oil as the pipe line can take it in order for the operator to retrieve the cost of drilling the well. However, this plan has not been put into effect and will be discussed during the coming week. The Louisiana legislature, in session during the past week, passed a resolution that no more taxes on crude oil or refined products would be added during the next 10 years. This is generous of this particular legislature, but oil men point to the fact that Louisiana already has the highest severence tax on crude oil of any oil producing state, ranging from 7 to 11 cents per barrel. It is a practical certainty that this schedule of severence tax will be revised downward during the next year.



Showing Haynes Production Co.'s No. 1 Harry Ottwell, SE cor. Section 15-23-16; Pelican Oil & Gasoline Co.'s No. 1 Sexton, NE cor. Section 14-23-16, and No. 1 Young discovery well and Haynes Production Co.'s No. 1 Lawton, second oil well in the Rodessa Field

Other Tests Near Horizon

Seven other wells in the Rodessa Field are nearing the completion stage and should throw more light on the gas and oil boundaries. Two of these wells are almost sure to be gassers. Arkansas-Louisiana Pipe Line Co.'s No. 1 J. S. Teamer, Section 13-23-16, the farthest northeast test, blew out with an estimated 45,000,000-foot flow of gas at 5,669 feet, was killed and is drilling ahead. United Gas Public Service Co.'s No. 1 Thomas Unit, Section 23-23-16, just north of the Rodessa townsite, is also in the gas trend from all indications. This test is drilling at 5,804 feet, having logged the base of anhydrites at 5,496 feet. If the United's No. 1 Thomas is a gasser, it will practically stop the anticipated townsite lot drilling as far as oil is concerned, and thereby eliminate much useless drilling of deep wells on small tracts.

It has been agreed by operators and the minerals division that one well to each 40-acre tract will be the schedule for the field outside of the townsite, and smaller tracts will participate in the current allowable on a ratio of the acreage on which the well is located as compared to the present allowable of 1,750 bbls. on each 40 acres.

Of the 11 new locations staked in the North Louisiana district during the past week, seven were in the Rodessa Field with two rank wildcats, one in Bossier and the other in Claiborne Parish. In the former, Douglas Spivey and others are drilling a shallow test to the Nacatoch in their No. 1 Bossier Development Co., Section 16-18-11, on a block of 1,500 acres. The test is located northeast of the Sligo gas field and about 5 miles southwest of the Bellevue shallow oil field. A few miles northwest of Athens in Claiborne Parish, Ryan Oil Corp. of Houston has staked location for its No. 1 F. A. Gladney, Section 27-20-7, and has contracted to drill to the upper trinity or a 5,000-foot test. The wildcat is located on a large block of acreage, surveyed as a magnetic high, and is about 10 miles west and north of the Sugar Creek Glen Rose gas field, and about the same distance south and east of the old Homer Field. This particular block has long been looked upon as a good structure and was twice assembled by John Wilder of Homer but never drilled to the Glen Rose.

None of the wildcats developed anything of interest, but at least three will be watched closely during the next few weeks. Herman L. Brown's No. 1 Monstead, Section 10-17-14, located on the Grambling structure near the town of Simmsboro in Lincoln Parish, has been claiming the attention of scouts for the past three weeks. The test topped anhydrites at 4,593 feet and is drilling ahead at 4,622 feet. American Liberty Oil Co.'s No. 1 Golson, Section 25-17-1e, Ouachita Parish, and near the town of Eros in Jackson Parish, is drilling at 4,900 feet in lime below anhydrites. South of Alexandria in Rapides Parish, Amerada Petroleum Corp.'s No. 1 Weil, Section 53-1s-2e, has set 11¾-inch casing at 1,671 feet and is drill-

ing ahead. This test is being drilled by a large ultra modern rig and will go to 6,000 feet or more. It was staked after extensive geophysical surveys in that area had been run.

The per cent of producers in North Louisiana was high in comparison to the average, reporting four oil wells, four gas wells and on Converse abandonment that failed to make a commercial well. Haynes Production Co.'s No. 1 Lawton, reported last week, was officially completed as a 525-bbl. per hour well from 6,052 feet, although some give it a potential open flow of as high as 50,000 bbls. daily. Two of the oil wells were in the Oil City-Pine Island area of the old Caddo Field and were small pumpers. The Urania Field in LaSalle Parish reported a small pumper of 10 bbls. and considerable salt water. Ouachita Parish in the old Monroe gas field furnished three of the average gassers and Union Parish in the same area reported the fourth gas well.

ARKANSAS

This district continues at a low ebb in drilling operations but is expected to pick up within the next few weeks as a number of rank wildcats located on large blocks of acreage are either moving in materials or rigging up. A majority of these wildcats will be deep tests to the Trinity or at least to the Glen Rose in the upper Trinity. One such test, Benedum & Trees' No. 1 Holmes, C NE SW Section 4-17-5, Ashley County, has rigged up and is drilling a water well. Another deep hole, Joe Modisett and others' No. 1 Red River Lumber Co., Section 21-19-24, southeast of the Bradley Field, Lafayette County, is moving in rig. Other wildcats follow: Arkansas County, Arkansas Oil Co.'s No. 2 Fischer, Section 6-6-4w, fishing for drill stem at 1,628 feet; Calhoun County, Hunter Co.'s No. 1 Stout Lumber Co., Section 33-16-13, shot and pulled 2,500 feet of drill stem and is shut down waiting orders at 2,597 feet; Dallas County, McCall & Kelly's No. 1 Ray Owen, Section 26-10-16, set 10-inch at 62 feet and drilling at 302 feet; Lafayette County, Riggs Brothers' No. 1 J. W. DuBose, Section 35-15-24, cemented back to 2,597 feet from the old total depth of 2,817 feet, Transportation Petroleum Co.'s No. 1 Cockran, Section 26-19-25, developed salt water on drill stem test at 2,020 feet and coring at 2,080 feet; Ouachita County, Snow Black Petroleum Co.'s No. 1 Bedford, Section 32-11-18, shut down for rig repairs at 1,547 feet; Poinsett County, Rockwell Development Co.'s No. 1 W. A. Smith, Section 13-11n-3e, was shut down for several days during the past week drilling water well but has resumed operations and drilling in limestone at 1,920 feet; Sevier County, Pendleton & Vaughn's No. 1 State Life Insurance Co., Section 27-9-30, set 10-inch surface casing at 40 feet and drilling at 470 feet.

The one completion, a wildcat in Ashley County, Texas Seaboard Oil Co.'s No. 1 fee, Section 28-17-4, failed to fish out 400 feet of drill stem lost in the hole and the well was junked and abandoned at 2,504 feet. It is not known at this writing whether another test will be drilled on the block. Two new locations were reported from this district. In Miller County, McAllister Fuel Co. has location for its No. 1 J. N. Cooper, Section 18-20-27, and in the Urbana area of Union County, Marine Oil Co. is moving in rig on No. 8-E Thompson in Section 3-18-13.

Crude Production

Estimated daily average production during the week ending September 14 follows:

NORTH LOUISIANA

	Bbls.
Bellevue	503
Caddo light	4,335
Caddo heavy	2,295
Converse	1,055
Cotton Valley	410
DeSoto and Red River	1,430
Elm Grove	390
Haynesville	3,380
Holly	150
Homer	2,650
Pleasant Hill	165
Rodessa	3,935
Sarepta-Carterville	510
Urania	2,845
Zwolle	1,435
Total	25,488

SOUTH ARKANSAS

Champagnolle	2,060
El Dorado	2,260
Lisbon	320
Miller County	1,410
Nevada	900
Smackover light	2,265
Smackover heavy	17,860
Stephens	620
Urbana	2,370
Total	30,065

Suits to Test Legality of Wyoming Sales Tax

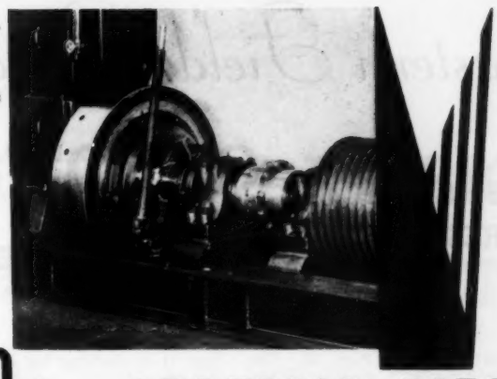
CHEYENNE, Wyo., Sept. 14.—The State of Wyoming, through its attorney general, has filed two suits in the district court here to test the legality of its new law levying a tax of 2 per cent on all retail sales to the ultimate consumer. One suit directed at companies operating pipe lines seek to collect the tax on oil transportation and the other is directed at companies making purchases of machinery and oil-field goods from concerns which have refused to pay the tax. The defendants in the first suit are Stanolind Oil & Gas Co., Sinclair-Wyoming Oil Co., Standard Oil Co. (Indiana), White Eagle Corp., Continental Oil Co. and Texas Co. The defendants in the action relating to equipment purchases are Oil Well Supply Co., Texas Co., Rocky Mountain Drilling Co., Mutual Oil Syndicate, Continental Oil Co., California Petroleum Corp. and Atlantic-Pacific Oil Co.

The law provides that the vendor must act as the agent of the State in collecting the tax from consumers and remitting the tax to the State. Customers refused to pay the tax in many instances as far as the two branches of the oil industry are concerned and the vendors were unable or unwilling to remit to the State under their interpretation of the law. The State then undertook to bill each individual consumer in the State for tax on sales made by the companies which claimed exemption and refused to pay the tax. The suits are intended to clarify the law and bring about a judicial interpretation of the measures as affecting the purchase and transportation of oil and the buying of equipment.

Anaconda Elects Officers

CHATHAM, Ontario, Sept. 14.—Directors of Anaconda Oil Co. of Calgary elected the following officers: President, Albert C. Johnson, Calgary; first vice president, O. L. Reinecke, Claresholm, Alberta; second vice president, H. H. Gilchrist, Claresholm; secretary-treasurer and managing director, A. J. Scott, Calgary.

No. 8100—24 in. 2-plate CR Twin Disc Clutch



350 hp. SUPERIOR DIESELS —TWIN DISC EQUIPPED FOR ROTARY DRILLING

This Superior Diesel Engine—8 cylinder, 9-in. bore by 12-in. stroke, 600 r.p.m. 350 h.p.—made by the National-Superior Company, Springfield, Ohio, is equipped with a No. 8100—24-in., 2-plate CR Twin Disc Clutch.

We will let the Superior Engine Division of the National-Superior Company tell you why. They say: "We selected the Twin Disc Clutch as it worked in well with our design, making a very compact unit. We have found from tests and experience that it is efficient and reliable with a low maintenance cost, easily adjusted, and requires a minimum amount of attention."

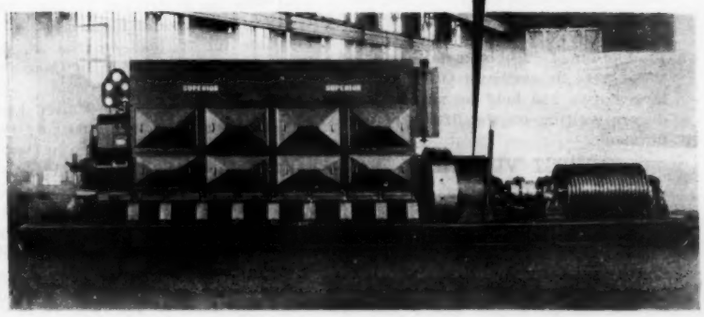
Write for specific recommendations. Engineering Data on request. *Twin Disc Clutch Company, 1328 Racine St., Racine, Wisconsin.*

TWIN DISC CLUTCHES

SALES and SERVICE

Fort Worth: Jno. Mueller Co., 312 Throckmorton

Tulsa: Buda Engine Service Co. of Tulsa, Inc.



Eastern Field Report

By STAFF CORRESPONDENT

CABOT'S TEST MAKES 450,000 FEET OF GAS FOLLOWING SHOT

PITTSBURGH, Pa., Sept. 16.—The Godfrey L. Cabot, Inc., test on the Plus R. Levi farm in Malden district, Kanawha County, West Virginia, which was reported last week as making 160,000 feet of gas naturally in the Oriskany sand at a total depth of 4,867 feet, increased its output to 450,000 feet after a shot.

Six additional deep tests are planned in Kanawha County. In Elk district the Columbian Carbon Co. is building a rig for a second test on the G. and D. Copenhaver farm about 2,000 feet northwest of the No. 1, which is good for 2,600,000 feet in the Oriskany at 4,846 feet. In this district Benedum & Trees are fishing for the tools in the deep test on the Mary C. Wingfield farm at 4,775 feet. The Yoak Oil & Gas Co. remains shut down at 4,703 feet on the W. T. and J. H. Goshorn farm.

In Malden district, Kanawha County, Godfrey L. Cabot, Inc., is rigging up the No. 1 on the W. D. Lewis farm, and has made a location for a test on the N. B. Tompkins farm, about 1,500 feet southeast of the Plus R. Levi farm. In this district the Columbian Carbon Co. is building a rig for a test on the M. J. Dearing heirs farm, almost exactly half way between the Cabot gas well on the Campbell Creek Coal Co.'s No. 8 and the Columbian Carbon Co.'s 8,000,000-foot Oriskany gas well on the W. D. Lewis farm.

In Loudin district, Kanawha County, Godfrey L. Cabot, Inc., has made a location for a second test on the Kanawha Land Co. lease, 3,500 feet southeast of the No. 1. The Winifrede Co. is drilling a No. 19 on its own property which is scheduled for a deep test and which has reached 1,240 feet. On the Kanawha City Co. lease the Columbian Carbon Co. is drilling at 4,625 feet.

In Union district, Godfrey L. Cabot, Inc., has made a location for a test on the Alberta Putney farm on Two-Mile Creek, 1 mile north of the western edge of Charleston. In Jefferson district, Benedum & Trees are drilling at 6,036 feet in the test on the Joseph Hill farm.

Completions

Thirteen completions and five dry holes were recorded in the lower eastern fields during the past week. Five were producers with a total initial production of 42 bbls. a day. Four of these were in southeast Ohio and the largest two are held as natural producers waiting on the lifting of curtailment.

WEST VIRGINIA

Only one producer was completed in West Virginia during the week. In Wirt County Glen Roberts and others completed a test on the N. T. McConaughey farm in Burning Springs district in the Injun sand at 1,946 feet. It is showing for 3 bbls. a day. In Clay district, same county, the No. 22 on the J. S. Swisher farm, completed by W. C. Patterson and reported as a dry hole in the Injun sand, after further tests is now reported making about 1 bbl. a day.

Drilling in West Virginia

In Calhoun County there is some new work. In Lee district Starcher & Richards have a rig standing for a test on the W. T. Campbell farm. Here these operators have started drilling a test on the J. J. King heirs farm. The Morley Oil & Gas Co. is about due in with a test on the George McKee farm. It has reached 2,225 feet. Kingsbury & Dollman have a rig standing for a test on the Homer and Lizzie Lynch farm. In Sherman district the White Pine Oil & Gas Co. has a rig standing for a second test on the Malinda Kight farm. In Washington district the Harper Oil & Gas Co. is drilling a test on the John F. Shafer farm, which is now 1,480 feet deep. Massey & Jarvis have a rig for a test on the Fred Valentine farm.

On Tanner Creek, DeKalb district, Gilmer County, the McCall Drilling Co. has a rig standing for a test on the J. J. Hardman farm. In this district and on the waters of Trace Fork, Coleman & Hamilton have a rig up for a test on the A. Gainer farm. V. M. Stewart and others are rigged up for a test on the C. F. Stalnaker farm.

In Kanawha County the Cambridge Gas Co. has spudded in and started drilling No. 3 on the W. A. Compton farm on Lick Branch of Coal River in Washington district. In Big Sandy district the United Fuel Gas Co. is drilling at 580 feet on the S. L. Casey and others lease. In Poca district W. O. Ziebold and others are down 1,430 feet on the D. A. Griffith farm, a test. In Cabin Creek district Godfrey L. Cabot, Inc., is down 2,662 feet in No. 49 on the A. D. Huntington estate and has a rig standing for No. 50.

In Marion County Victor E. Tennant has reached a depth of 1,645 feet in the test on the J. T. Talkington farm in Lincoln district. In Monongalia County the Carnegie Natural Gas Co. is drilling at 2,540 feet on the C. H. Brand farm and has a location for a test on the F. M. Shearer farm. Both are in Cass district.

In Putnam County the United Fuel Gas Co. is drilling at 1,700 feet the test on the M. R. Clark farm in Curry district. In Raleigh County Godfrey L. Cabot, Inc., has made a location for No. 10 on the Beaver Coal Co. lease and is down 2,710 feet in No. 9.

In Ritchie County Mossor & Frederick have made a location for a test on the Susan Goff farm in Murphy district. In this district Ralph Roberts and others have a location for a test on the A. L. and Lillian Wilson farm. Here S. O. Wilson and others have a location for a test on the Aaron Tingler farm. In Clay district John Trexler and others have started drilling a second test on the William Butcher farm.

In Roane County the United Fuel Gas Co. is rigging up No. 4,569 on the S. R. Ferrell farm in Smithfield district. Its No. 4,572 is located on the J. D. Looney farm. The Litton Oil & Gas Co. has spudded in and started drilling a test on the Elizabeth Dye farm, same district.

SOUTHEAST OHIO

Welcome to Buckeye producers in Southeast Ohio is the following notice mailed to all producers by the South Penn Oil Co., with whom they hold contracts for all oil as run: "Our company has been successful in securing new outlets for the surplus of Pennsylvania Grade oil in the lines of the Buckeye Pipe Line Co., and in order to meet this situation we are pleased to announce to you that curtailment of production, until further notice, will be unnecessary." Curtailment of production to 50 per cent of normal has been in effect since the middle of July.

The largest well for the week in Southeast Ohio is No. 5 of the Ohio Producing & Refining Co. on the Joseph and Retta Gadd farm in Section 1, Wheeling Township, Guernsey County. It was drilled in the Niagara lime at 3,669 feet and is producing 25 bbls. a day naturally.

In Hocking County, in NE Section 6, Ward Township, the Preston Oil Co. completed No. 1,584 on the Sunday Creek Coal Co. in the Clinton sand at 3,570 feet. It is showing for a producer, but it will not be shot until after curtailment is lifted.

In Holmes County Hulz and others drilled a test on the P. J. Blanchol farm in SE Section 12, Richland Township, through the Clinton sand to 3,450 feet. It was dry.

In Knox County the Upham Oil & Gas Co. completed a test on the W. H. Jones farm in Section 20, Jackson Township, in the Clinton sand at 3,100 feet. It produced 3 bbls. the first day, naturally, which will probably increase to 7 or 8 bbls. a day after a shot.

In Meigs County the Ohio Fuel Gas Co. completed a test on the S. G. Singer farm in the east part of Lot 1,201, Sutton Township, in the Berea sand at 1,926 feet. It is a small gas well gauging 25,000 feet a day.

In Noble County W. T. Warren and others drilled a test on the E. O. Davis farm in SE Section 36, Olive Township, through the 700-Foot sand to a depth of 737 feet. It was dry, with no showing of oil or gas.

In Washington County the Peoples Savings Bank Account No. 80, drilled No. 3 on the Goodman Brothers farm on the Ohio River in Section 25, Newport Township. It is producing 1 bbl. a day, naturally, from the shale at 550 feet.

SOUTHWEST PENNSYLVANIA

No completions were made in Southwest Pennsylvania during the week and there is only one new location. In North Franklin Township, E. H. and J. B. Tague are building a rig for a test on the Hiram McClain farm, Washington County.

In Amwell Township, Washington County, the Wise Oil & Gas Co. is drilling at 1,975 feet on the Ensley Kelsey farm. The test of the Carnegie Natural Gas Co. on the R. M. Carrons No. 2 farm is completed at a total depth of 2,925 feet, the Fifth sand, and testing the oil in that formation.

In South Franklin Township, Washington County, F. K. Fawcett and others are fishing the tools in the test on the B. A. Bonham farm at 825 feet. On the W. Dodd farm these operators are moving in the tools and are ready with the rig for the test. In South Franklin Township Furman Nuss and others are down 1,810 feet in the test on the James Pipes farm. The second test on the Jason Buchanan farm being drilled by these operators is down 930 feet. The Pittsburgh Coal was at 600 feet.

In West Bethlehem Township, Washington County, H. D. Freeland and others are down 1,900 feet deepening the test on the Winfield McCarty farm. In Amwell Township the Carnegie Natural Gas Co. is spudding in the second test on the C. W. Dunn farm.

In Greene County the Carnegie Natural Gas Co. is spudding in the test on the Lucinda Hunt farm in Morris Township, near the East Findley oil pool. In this township Earl Hoskinson and others have spudded in and started drilling a test on the Harry Clutter farm.

In Center Township, Greene County, the Carnegie Natural Gas Co. is drilling at 3,035 feet on the J. H. Orndoff farm. Here the Rutan Oil Co. has reached 1,440 feet in No. 3 on the C. T. Harvey farm. The Pittsburgh Coal was at 1,010 feet. In Dunkard Township Ira Donley has reached 1,500 feet in a test on his own farm.

In South Beaver Township the test of John Galey and others on the William Graham farm, Beaver County, has reached a depth of 2,800 feet.

In South Shenango Township, Crawford County, the Carnegie Natural Gas Co. is drilling at 1,525 feet in the deep test on the Gertrude Scott farm. Fast time is now being made.

Oklahoma Operations

By JAMES McINTYRE

GREATER SEMINOLE DISTRICT BUSIEST IN NEW OPERATIONS

Oklahoma production was permitted to increase to 493,325 bbls. per day in the past week after a drop to 449,525 bbls. per day in the previous week, but the past week's production can be absorbed without difficulty.

The week passed without any unusual developments. The Fitts Pool saw the completion of several good wells but the field is being rapidly drilled up, the completions for some time having exceeded the new operations. The South Burbank Pool had a 2,500-bbl. completion and several others of smaller output. The general Seminole area had the greatest number of new locations made in the course of the week.

The story of the week's events in the field is told as follows:

Fitts Pool

In the Fitts Pool, Pontotoc County, Magnolia Petroleum Co.'s No. 3 Simpson, SE SE NE Section 29-2-7, was abandoned at 2,633 feet. This well blew out with 100,000,000 feet of gas from Cromwell sand at 2,415 feet and after it had been killed the drill pipe was lost at 2,633 feet.

Moore and others completed No. 5 Woodruff, NE NE SE Section 29-2-7. It was given a potential of 3,721 bbls., the production coming from Bromide sand topped at 4,030 feet and 4,095 feet. Its best hourly flow was 498.77 bbls.

Moore and others' No. 6 Woodruff, SE NE SE Section 29-2-7, which made 228 bbls. the first hour from Bromide sands topped at 4,000 feet and 4,050 feet, was completed.

Carter Oil Co.'s No. 3 Julia Smith, SW NE NE Section 31-2-7, flowed 215 bbls. in one hour through casing and 116 bbls. in one hour through tubing from sands at 3,866 feet and 3,966 feet, total depth 3,995 feet, in McLish. It was completed.

Moore and others were rigging up for No. 9 Akers, SW SE NE Section 36-2-6. Blackstock and others were drilling at 1,520 feet in No. 2 Lewis, SE SE SE Section 19-2-7. Magnolia Petroleum Co. was drilling at 1,750 feet in No. 3-A Simpson, 330 feet from east and 255 feet from south lines of NE quarter Section 29-2-7, and drilling at 60 feet in No. 5 Simpson, NE SE NE Section 29-2-7. Delaney and others have made a location for No. 1 Fox, 1,337 feet from the north and 1,091 feet from east lines of SE quarter (Lot 8, Block 3, Jesse townsite), Section 2-1-7.

Near Completions

Burke-Greis Oil Co.'s No. 3 Chambers, NE NW NW Section 36-2-6, which would not flow from the first Bromide sand at 4,310-38 feet, was deepened to second Bromide at 4,380-91 feet and acidized with 2,000 gallons and a 212-bbl. oil load. It flowed one head of 65 bbls.

J. G. Catlett's No. 1 Smith, SW SW NW Section 28-2-7, had Bromide at 3,950 feet, sands at 4,050-65 feet and 4,120-65 feet, and McLish lime at 4,165-74 feet. It had not been tested for production.

Moore and others' No. 1 McKoy, NE SE SE Section 29-2-7, topped Bromide at 3,925 feet and at 4,147 feet flowed 80 bbls. per hour. Drilling was continued.

Moore and others' No. 6 Wirick, NE NE SW Section 29-2-7, flowed 182 bbls. in one hour at 4,195 feet. McLish was topped at 4,211 feet and the well was drilling at 4,272 feet.

Moore and others' No. 2 Mitchell, NE SW NW Section 31-2-7, had Arbuckle lime at 5,120 feet and drilled to 5,272 feet, and was then plugged back to 4,550 feet. McLish was topped at 4,460 feet and there was sand at 4,500-10 feet and 4,518-40 feet. No test had yet been made after plugging back.

Moore and others' No. 1 Witherspoon, NW SE NW Section 31-2-7, which had McLish at 4,362 feet and was drilled to 4,595 feet where it had a hole full of water, after which it was plugged back to 4,520 feet, was acidized with 6,000 gallons in two treatments. It flowed 194 bbls. of oil in 24 hours through tubing, cutting from 1 to 4½ per cent. Later it was put on the gas-lift and produced 49 bbls. of oil in 24 hours, cut 1 per cent with salt water.

The status of operations in the Fitts Pool, in Townships 2-6 and 2-7 is 34 wells drilling, 2 rigged up, cellar and pits dug on 18 locations and 6 locations staked. Most of the current operations in the field are those of Edward H. Moore and others of Tulsa, the only operators in the Fitts Pool with any considerable amount of undrilled acreage and this firm's undrilled holdings are in the eastern and southern ends of the field.

Greater Seminole Field

Carter Oil Co. completed No. 1 Loy, C W half SW SE Section 7-10-6, in the Keokuk Field, Seminole County. It swabbed 248 bbls. of oil and 200 bbls. of water from Wilcox sand at 4,600-09 feet, total depth. It will be put on the pump.

Carter Oil Co. and others' No. 2 Douglass, C W half SE NW Section 18-10-6, completed in Wilcox sand at 4,590-4,605 feet, total depth, swabbed 101 bbls. in 11 hours.

Wood Oil Co. completed No. 2 Lincoln, NE SW SW Section 28-9-6, Seminole Pool. It swabbed 2,090 bbls. of oil in 48 hours from Wilcox sand at 4,108-24 feet.

Amerada Petroleum Corp.'s No. 11 Chase, NE SE SE Section 29-9-6, a completion in Wilcox sand at 4,105-31 feet, total depth, swabbed 1,592 bbls. in 48 hours.

Carson Oil Co.'s No. 1 Barnett, SE NE NE Section 36-8-11, Hughes County, which found a hole full of water at 1,500-36 feet in July, has been abandoned.

O'Mara and others' No. 1 Bowlby, NW SW SE Section 24-6-3, West Asher Pool, Pottawatomie County, was abandoned. It got a hole full of water in the Simpson series at 3,834-60 feet, total depth.

Mudge Oil Co.'s No. 1-A Thomas, 330 feet south and 1,190 feet west of C Section 9-6-7, Seminole County, was a hole full of water at 1,862 feet, total depth, and was abandoned.

Magnolia Petroleum Co.'s No. 2 Diamond, 990 feet from south and 810 feet from west lines of NW quarter Section 8-6-8, is a Booch sand completion at 2,727-44 feet, total depth 2,747 feet. It flowed 215 bbls. in 13 hours through casing and 154 bbls. in 24 hours through tubing.

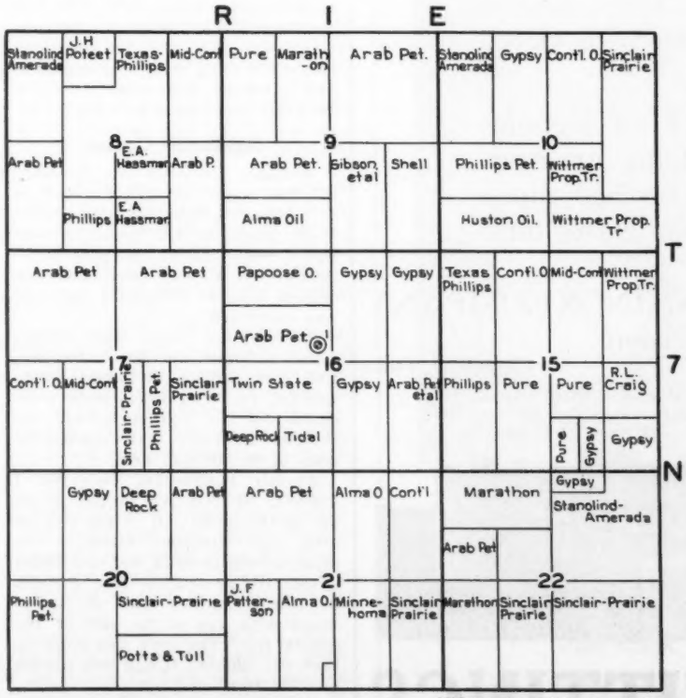
Pittsburg Pipe & Supply Co.'s No. 1-A Harris, SW SW NW Section 18-6-8, Seminole County, had Gilcrease sand at 2,786-2,836 feet. It was completed after having swabbed 140 bbls. in 24 hours.

Blackwell & James' No. 2 Patterson, NE SE SW Section 4-5-3, Pottawatomie County, is a 48-bbl. completion at 2,694-2,703 feet, total depth 2,706 feet.

In the Allen district, W. A. Delaney's No. 1 Holt, 430 feet north and 400 feet west of C Section 22-5-8, was dry and abandoned at 862 feet.

New Work Started

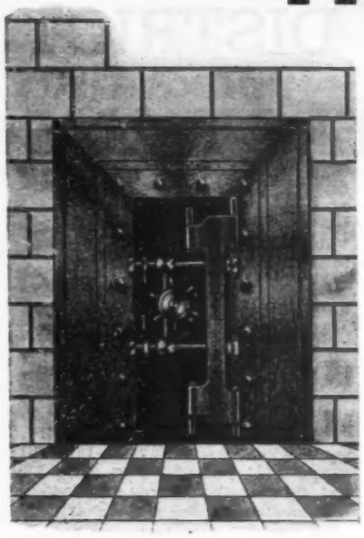
Mid-Continent Petroleum Corp.'s No. 1 Marcy, NE SW NW Section 13-9-6, Seminole County, was rigged up; Oklahoma Oil Corp.'s No. 1-A Carter, C NE SE Section 23-9-6, rigging up; J. A. Hull and others' No. 1-A Taueche, C NE NW Section 29-9-6, drilling at 950 feet; Wood Oil Co.'s No. 1-A Homestake, SE NE NW Section 28-9-6, drilling at 2,795 feet; Wood Oil Co.'s No. 1 Templeton, NW SE SW Section 28-9-6, rigging up rotary; Manahan Drilling Co.'s No. 3 Dixon-B, NE SE NW Section 12-9-8, rigging up; Manahan Drilling Co.'s No. 1 Dixon-C, SW NW NE Section 12-9-8, location; Manahan Drilling Co.'s No. 1 Oliphant, NW NW SE Section 12-9-8, drilling at 100 feet; Potco Oil Co.'s No. 3 Dixon, NW NE NW Section 12-9-8, drilling at 400 feet; Shepard's No. 2 Oliphant, NW NE SW Section 12-9-8, rigging up rotary; Deep Rock Oil Corp.'s No. 1 Robert, SW NW NW Section 32-9-8, location; Scott & Lynch's No. 2 Brandenburg, SE SE SW Section 34-8-4, Pottawatomie County, building rig; E. W. Jones and Tom Phillips' No. 1 Morton, SW NE SW Section 36-8-4, had Hunton lime at 2,923 feet, with a slight showing of oil, Sylvan shale at 4,003 feet, and set 7-inch pipe at 3,923 feet. It was drilling below 4,003 feet; Blackwell Oil & Gas Co. had rotary rigged up for No. 1



—Mid-Continent Map Co., Tulsa.

Lease ownership around Arab Petroleum Co.'s test on the McKiddy farm in SE SE NW Section 16-7-1e, in Cleveland County

A Bank Vault PROTECTS *quick* ASSETS



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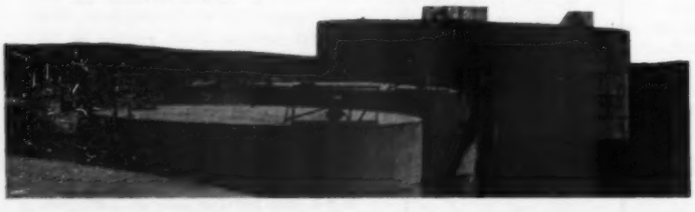


OCECO FITTINGS

Harjo, NW NW NW Section 34-8-7, Seminole County; Magnolia Petroleum Co.'s No. 1-B Reed, NW NE NW Section 34-8-8, Hughes County, building rig; Blackwell Oil & Gas Co.'s No. 5 Baker, 300 feet south and 255 feet east of C Section 11-7-6, Seminole County, a rig; Paul Traugh and others' No. 1 Dawson, SE NE NE Section 30-6-5, Seminole County, moving in tools; Mudge Oil Co.'s No. 4 Heard, NW SE NW Section 9-6-7, building derrick, and No. 2 Thomas, NE NE SW Section 9-6-7, cellar dug; A. L. Spiers' No. 3 Aldridge, C SW NE Section 7-6-8, Hughes County, rigging up.

Gypsy Oil Co.'s No. 1 Doser, SE SW NE Section 14-6-5, Seminole County, swabbed 304 bbls. in 4 hours and 45 minutes and then swabbed 202 bbls. in 3 hours and was shut in for tankage. It produced from Dolomite topped at 3,737 feet, pay at 3,764-74 feet.

Burke-Greis Oil Co.'s No. 3 Jackson, 758 feet north and 150 feet east of SW cor. Section 29-7-8, had Wilcox sand at 4,157-61 feet, total depth. It flowed 240 bbls. of oil in 13 hours and then filled 500 feet with water. It was plugged back to 4,135 feet. Dolomite was topped at 4,117 feet.

J. H. Vinson and others' No. 3 Davis, SE SW NE Section 30-7-8, Fish Pool, was treated with acid and 150-bbl. oil load at a total depth of 4,164 feet and later swabbed 175 bbls. of oil, gross, and 410 bbls. of water in 12 hours.

Fleetborn Oil Co.'s No. 3 Stump, SW NE SW Section 27-8-8, swabbed 25 bbls. an hour from Wilcox sand at 4,250-60 feet.

Olympic Oil Co.'s No. 2 Dixon-B, SE SE NW Section 12-9-8, Seminole County, was shot with 60 quarts at 1,711-18 feet, total depth 1,766 feet, and flowed 168 bbls. in 24 hours.

Huckleberry and others' No. 2 Gray, NW SE SW Section 25-6-4, Pottawatomie County, was a hole full of water at 3,862-92 feet and was to be plugged back. Viola lime was topped at 3,680 feet.

Indian Territory Illuminating Oil Co.'s No. 1 Church, SW NW NW Section 13-6-5, Seminole County, which was shot with 120 quarts at 3,790-3,838 feet, was swabbed down and produced 125 bbls. of water. Dolomite was topped at 3,775 feet.

Oklahoma County

Westgate Oil Co.'s No. 7 Carey, 657 feet south and 275 feet east of C Section 34-12-3w, Oklahoma City Pool, produced 222 bbls. in four hours, with gas at the rate of 9,600,000 feet per day, producing from Wilcox sand at 6,360-6,513 feet, and was completed.

Slick-Urschel, Inc., was digging cellar and pits for No. 1 McGrew, SW cor. Section 20-13-3w; Slick-Urschel, Inc., and others made a location for No. 1 Church, NE cor. Section 30-13-3w, both community tests in the Britton area.

Sinclair Prairie Oil Co.'s No. 1 Corbett, NE NW NE Section 17-13-3w, in the north end of the Britton area in Oklahoma County, was plugged back to 6,673 feet and bailed down. It flowed 2,090 bbls. of fluid, 90 bbls. of which was oil, in 19 hours with gas at the rate of 10,000,000 feet. The crew was plugging back still higher. It had been drilled to 6,733 feet.

Slick-Urschel, Inc., and others' No. 1 Meeker, NW cor. Section 29-13-3w, in the Britton Pool, which flowed 1,340 bbls. of oil in 1 hour and 25 minutes, following an acid treatment in Dolomite at a total depth of 6,757 feet.

Oklahoma

Estimated daily average production of Oklahoma for the week ending September 14 and for the preceding week is as follows:

	Barrels	
	Sept. 14	Sept. 7
Allen	6,925	7,275
Asher-West Asher	1,150	1,150
Burbank	8,500	8,200
South Burbank	11,500	11,100
Balance Osage	22,250	26,000
Blackwell	4,800	4,725
Bristow-Slick	9,100	9,100
Chandler	4,575	4,750
Crescent	4,850	3,150
Cromwell	4,225	4,250
Cushing-Shamrock	13,400	13,400
Duncan district	4,400	4,450
Edmond	6,325	2,550
Fish	9,575	8,475
Fitts	18,025	14,950
Gray	1,650	1,625
Graham	4,100	4,100
Healdton	9,200	9,200
Hewitt	4,450	4,500
Holdenville	1,400	1,450
Keokuk	4,200	1,325
Konawa	1,200	1,750
Lucien	10,100	9,750
Marshall-Lovell	1,175	1,100
Oklahoma City	140,600	116,775
Papoose	1,200	1,200
Polo	3,350	2,450
Sasakwa and townsite	3,550	3,125
Sholem-Alechem	3,900	3,900
Seminole Field:		
Bowlegs	8,850	8,800
Carr City	5,700	2,500
Earlsboro	9,150	8,775
East Earlsboro	10,225	10,200
South Earlsboro	1,050	975
Little River	14,225	13,600
East Little River	900	850
Maud	975	1,250
Mission	3,000	2,750
Seminole	11,850	11,175
East Seminole	1,325	1,150
Searight	4,800	5,125
Total Seminole	72,050	67,150
St. Louis-Pearson	24,375	22,375
Tatums	4,750	4,500
Tonkawa-Garber-Thomas	5,775	5,775
Wewoka	3,400	3,400
Yale-Jennings	4,675	4,950
Other pools	55,625	55,600
Total Oklahoma	493,325	449,525

Osage County

Completed work in Osage County in the past week was as follows:

Enterprise Transit Co.'s No. 4 Williams, NW NE NW Section 35-26-6, north end of the South Burbank Pool, had Bartlesville sand at 2,862-2,940 feet. It flowed 103 bbls. naturally in 24 hours but after a shot flowed 1,276 bbls. in 24 hours. It also made 250,000 feet of gas. Same company's No. 5 Williams, NW NW NW Section 35-26-6, had Bartlesville sand at 2,840-2,916 feet. It flowed 2,536 bbls. naturally in 24 hours with 2,000,000 feet of gas.

Carter Oil Co. and others' No. 10 Skelly-Ducotey, SW NW SW Section 3-25-6, flowed 424 bbls. in 24 hours from Bartlesville sand at 2,699-2,740 feet, total depth, which had not been shot. Carter Oil Co. and others' No. 3 Bean, SE NE NW Section 15-25-6, produced 1,025 bbls. in 24 hours from Bartlesville sand at 2,805-37 feet, total depth. It was not shot.

Lewis Production Co.'s No. 7, 980 feet north and 980 feet east of SW cor. Section 9-24-7, Naval Reserve Pool, completed in Bartlesville sand at 2,660-2,702 feet, swabbed 20 bbls. of oil and 25 bbls. of water initially after a 20-quart shot.

Barnsdall Oil Co.'s No. 18, 1,006 feet north and 198 feet west of SE cor. Section 18-23-12, pumped an initial of 25 bbls. from sand at 1,590-1,602 feet, shot with 20 quarts.

New work in the county included Rock & Latham's No. 30, NE cor. NW NE SW Section 2-28-10, spudded; Kewanee Oil & Gas Co.'s No. 1, 330 feet from south and 300 feet from east lines of SW quarter Section 27-26-6, moving in material; Texas Co.'s

No. 1, SW cor. SE Section 22-24-6, location; National Refining Co.'s No. 1, SE cor. NE Section 11-24-7, location; Sinclair Prairie Oil Co.'s No. 8, SE NW SW Section 15-24-7, location; Lewis Production Co.'s No. 11, SE NW NW Section 21-24-7, drilling at 505 feet; Barnsdall Oil Co.'s No. 19, 1,093 feet north and 869 feet west of SE cor. Section 18-23-12, location; Gray & Tolson's No. 9, SE cor. NW SW Section 27-21-9, location.

Bay Oil Co.'s No. 1, 300 feet from south and 1,290 feet from east lines of SW quarter Section 25-22-7, swabbed 97 bbls. in 24 hours from pay at 2,939-43 feet. Wilcox sand was topped at 2,794 feet and Hominy sand at 2,830 feet.

Pawnee County

Stanolind Oil & Gas Co. and Amerada Petroleum Corp.'s No. 1 Shunatana, NE SW SE Section 32-22-3, Pawnee County, a wildcat, was abandoned at 4,283 feet. Dolomite was topped at 4,222 feet with first sand at 4,225-35 feet and second at 4,260-83 feet, and a hole full of water.

Garfield County

Herndon Drilling Co. and others made a location for No. 1 Whitaker, SE SE SE Section 27-24-3w, a wildcat in Garfield County.

Kay County

Wentz Oil Corp.'s No. 2-A Mussetter, C SW SW Section 5-28-1, in the Dilworth Pool, Kay County, made an 8-bbl. pumper, completed at 3,299-3,325 feet, shot with 25 quarts.

J. T. Lindsay's No. 1 Waggoner, NW NW NE Section 3-27-1, a wildcat, was a hole full of water from Wilcox sand at 4,230-35 feet and was abandoned.

Cleveland County

In Cleveland County, Sinclair Prairie Oil Co. and others' No. 1 Husman, SW SE SW Section 21-10-2w, in the Moore Pool, topped Oswego lime at 6,610 feet and was drilling below 6,680 feet. Hall Briscoe, Inc.'s No. 1 Fant, SW SW NE Section 27-10-2w, a wildcat, was drilling at 6,840 feet. Arab Petroleum Co. and others' No. 1 McKiddy, SE SE NW Section 16-7-1e (elevation 1,216 feet), was drilling at 6,545 feet after topping Woodford shale at 6,130 feet and Viola lime at 6,530 feet. Asa Lee Mayes, Inc. has rig corners in for No. 1 Parsons, SW SW SE Section 30-9-1. All of these Cleveland County tests have been and will be closely watched until they are completed. The success of the Sinclair Prairie Oil Co.'s No. 1 Franklin, SE NW SE Section 21-10-2w, which was an enormous gasser and producer of distillate from Wilcox sand topped at 7,269 feet drew attention to the possibilities of Cleveland County as a prospective important oil producing county.

Lincoln County

Stanolind Oil & Gas Co. and Amerada Petroleum Corp.'s No. 1 Connelly, SE NE SE Section 23-14-2, Lincoln County, had Wilcox sands at 5,194 feet and 5,263 feet, total depth 5,269 feet. No showing was reported. It was shut down for orders. It is a wildcat test.

Alfalfa County

Tex-O-Kan Co.'s No. 1 Acre, C SW NE Section 14-24-11w, in Alfalfa County, set whipstock at 6,250 feet and was waiting for cement to set. This test has experienced a lot of grief this summer, having cemented off tools in July, lost drill pipe in August and cemented off a bailer in September. It is at a total depth of 6,460 feet but was plugged back to 6,296 feet.

Noble County

In the Polo Pool, Noble County, Stanolind Oil & Gas Co. completed No. 8 Voss, NW SE SE Section 28-22-2w, in Dolomite at 4,814-58 feet. It made a 24-hour potential of 2,110 bbls. and 3,000,000 feet of gas.

In the Lucien Pool, Noble County, Carter Oil Co.'s No. 4 Weber, 810 feet north and 810 feet east of SW cor. Section 20-20-2w, had Wilcox sand at 4,984-5,000 feet and 5,055-5,148 feet. It made a 24-hour potential of 3,118 bbls. with 3,300,000 feet of gas and was completed.

Stanolind Oil & Gas Co. and others' No. 3 Frederick, C SE SE Section 28-20-2w, was completed in sand at 5,143-65 feet. It flowed 50 bbls. in 24 hours.

Skelly Oil Co.'s No. 2 Hannah, SE SW SW Section 22-22-2w, is a cellar; Stanolind Oil & Gas Co. and Amerada Petroleum Corp.'s No. 19 Voss, NE SW SE Section 28-22-2w, digging cellar; Sinclair Prairie Oil Co.'s No. 2 Frederick, 385 feet from south and 660 feet from east lines of NE quarter Section 33-20-2w, location.

In the deep sand development of the Billings Pool in Noble County, Phillips Petroleum Co.'s No. 1-A O'Neil, SE cor. Section 16-23-2w, flowed 180 bbls. a day with no water showing and tubing was run to further test. It had its first deep sand showing at 4,219 feet, total depth 4,295 feet.

Midco Oil Corp.'s No. 1-A Yost, 800 feet from west and 400 feet from north lines of NE quarter Section 22-23-2w, was plugged back to 4,248 feet to get a water shutoff. It had swabbed 170 bbls. of oil and 180 bbls. of water at 4,253 feet. It had its first showing of oil and gas at 4,250 feet in June and the owners have been working on the well ever since to convert it into an oil producer with a minimum of water production. It flowed 560 bbls. of oil in seven hours late in June but at that time also flowed 140 bbls. of water.

Harry Chapple's No. 1 Ragon, NW SE NW Section 29-21-1w, in the Perry gas field, had sand at 1,530-78 feet which yielded 6,000,000 feet of gas in 24 hours and was running 8-inch casing.

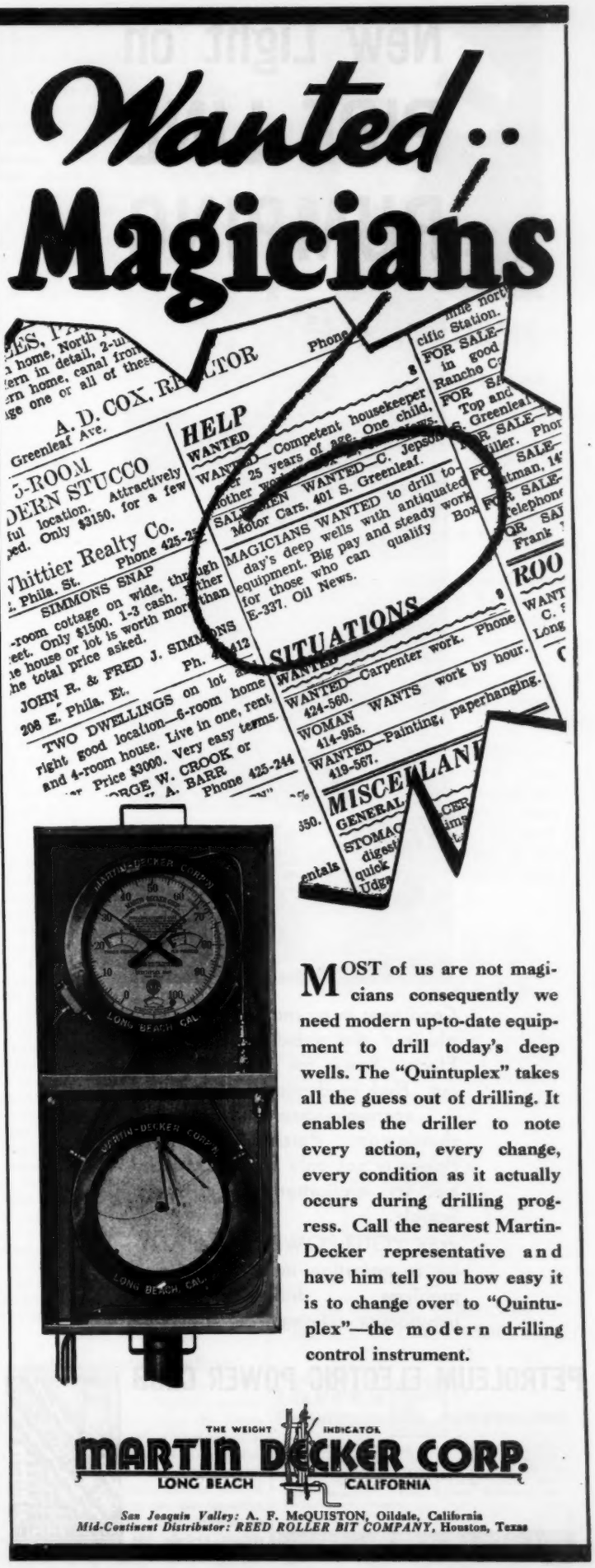
Shell Petroleum Corp. and others' No. 3 Moelling C-26, 440 feet from south and 990 feet from east lines of SE quarter Section 17-20-2w, in the Lucien Pool, topped first Wilcox sand at 5,168 feet and was drilling. It had no oil showings.

Gypsy Oil Co.'s No. 1 Pfeiffer, 930 feet from south and 660 feet from west lines of SE quarter Section 33-20-2w, was shot with 67 quarts in Dolomite at 4,958-90 feet and it made one flow of 100 bbls. The hole filled with oil and was being cleaned out, total depth 4,995 feet.

Sinclair Prairie Oil Co.'s No. 1 Frederick, C NE NE Section 33-20-2w, which had first Wilcox sand at 5,040-87 feet, total depth 5,140 feet, was running tubing to test. It had swabbed 85 bbls. in 24 hours in its last test.

Stanolind Oil & Gas Co.'s No. 1 Sharp-A, C NW NW Section 34-20-2w, flowed 115 bbls. in 24 hours from sand at 5,065-75 feet, following a 20-quart shot.

Phillips Petroleum Co.'s No. 1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Pfeiffer, C NE NE Section 4-19-2w, on the Logan County side of the Lucien Pool, flowed 112 bbls. from pay at 5,044-48 feet and later flowed 98 bbls. a day. It was drilling at 5,065 feet.

Logan County

Gypsy Oil Co. and Carter Oil Co.'s No. 4 Knowles, SE SW NW Section 34-17-4w, in the Crescent Pool in Logan County, was completed in Wilcox sand at 6,223-60 feet, total depth. It flowed a potential production of 994 bbls. per day. The oil was cut one-fifth of 1 per cent.

Sinclair Prairie Oil Co. and Slick-Urschel, Inc.'s No. 1 Glenn, NE NE SE Section 27-15-3w, at a total depth of 6,220 feet, bailed 1 to 2 bailers of oil per hour with some distillate and the crew was running tubing to acidize. Simpson dense was topped at 6,145 feet. The well's shut-in pressure is 2,150 pounds.

Sinclair Prairie Oil Co. and others' No. 1 Foree, NE cor. Section 1-16-1w, total depth 5,283 feet, in Dolomite, swabbed 390 bbls. in three days. It had been acidized.

Grady County

Magnolia Petroleum Co.'s No. 1 Rockhold, C NE NW Section 11-4-8w, deepened from 1,429 feet to sand at 1,860-72 feet where it produced 2,986,000 feet of gas initially was completed. Total depth 1,895 feet.

Pittsburg County

Vaughn Production Co. has cellar dug for No. 1-B Chunn, 614 feet west and 990 feet north of C Section 29-4-14, Pittsburg County.

Beckham County

South of the Sayre Pool in Beckham County, G. E. Martin has made a location for No. 1-B Hood, C NE NW Section 7-8-23w. It is announced as a 3,000-foot cable tool test.

Northern Pontotoc County

Radial Oil Co.'s No. 2-B Simpson, NW NW NE Section 20-4-8, Allen Field, Pontotoc County, was abandoned at 1,906 feet, a hole full of water at 1,903-06 feet.

Boettcher Oil & Gas Co. was rigging up machine for No. 3 Starrett, SW SW SE Section 23-4-7; Delaney and others' No. 2 Crumley, 490 feet north and 265 feet west of C Section 22-5-8, machine in; Morris & Wilson's No. 1 Gilmore, SW cor. NE Section 22-5-8, drilling at 280 feet; Texhoma Oil Co.'s No. 1 Fitzgerald, SE NE NW Section 29-5-8, spudded; Boettcher Oil & Gas Co.'s No. 3 Starrett, SW SW NE Section 23-4-7, rigging up machine.

Okmulgee County

Two dry holes formed Okmulgee County's completion record, Stekoll and others' No. 1-A Hawkins, SW NW SE Section 6-11-12, total depth 2,762 feet, and F. D. Misener's No. 7 Carter, C S half NW SE Section 10-15-14, total depth 1,700 feet.

Wagoner County

In Wagoner County, John Boley's No. 1 Cousens, NE SE NE Section 7-17-16, was dry and abandoned at 1,017 feet.

Creek County

Creek County completions included Spartan Pipe Co.'s No. 18 Lee, Taneha sand at 1,674 feet, total depth 1,694 feet, shot with 20 quarts, 8-bbl. pumper; Big Four Oil Co.'s No. 1 Jackson, SE SE NE Section 34-19-8, hole full of water and abandoned at 2,840 feet.

Southern Fields

Completions in southern Oklahoma counties were as follows:

Manson's No. 2 Minor-A, NE cor. Section 15-1n-20w, Jackson County, granite wash at 1,495-1,514 feet, flowed 304 bbls. in 20 hours and 768 bbls. in 72 hours following. The oil is 44.2 gravity at 72° F.

J. W. Madison's No. 1 Tussey, SW SE NW Section 24-1n-4w, Stephens County, abandoned at 3,220 feet with the drill pipe in the hole several months.

Mid-Tex Petroleum Co.'s No. 1 Ward, SW SW SE Section 19-1n-2w, Carter County, was abandoned at 1,968 feet.

G. W. Howell and others' No. 1 Currey, SE SE SW Section 36-4s-9w, Jefferson County, was dry and abandoned at 2,505 feet.

Lavelle Coal Co.'s No. 11 Eppler, SW cor. SE NE Section 36-7s-5e, Jefferson County, was dry and abandoned at 500 feet. It had dry sand at 492-95 feet. Fleming & Kimball's No. 7 Snell-A, 550 feet east and 750 feet south of NW cor. Section 31-7s-6e, Jefferson County, was dry and abandoned at 518 feet. Dry sand was penetrated at 475-500 feet.

New work first reported included B. B. Bacon's location for No. 2 Fahy, 760 feet north and 230 feet east of SW cor. Section 21-2-10w, Comanche County; Gypsy Oil Co.'s No. 2 Stokes, SW SW SW Section 11-1-20w, rigging up tools; Louis Sikes' No. 1 Byrd, SW SE SW Section 4-2s-2w, Carter County, building rig for 4,000-foot test; Coline Oil Co.'s No. 15 Willis, 330 feet from north and 370 feet from east lines of SE quarter Section 6-4s-3w, Carter County, drilling at 460 feet; M. H. Barrett's No. 1 Mose, CNL NW SW Section 9-6s-7w, Jefferson County, spudding with machine.

Canadian Imports

OTTAWA, Ontario, Sept. 14.—Imports of petroleum, asphalt and their products into Canada in June were appraised at $4,919,718, an increase of 10.6 per cent over the May valuation of $4,448,874. Sources of imports, with percentages, were: United States, 79.1; Colombia, 10.3; Peru, 7.9; Venezuela, 2.1. Crude petroleum imports in June totaled 131,873,166 gallons compared with 113,131,917 gallons in May. Sources of the June imports were: United States, 97,568,758; Colombia, 17,728,710; Peru, 12,935,698; Venezuela, 3,640,000. Canada exported petroleum and its products to a value of $38,034 in June compared with $213,428 in May.

Canadian Sales Up

OTTAWA, Ontario, Sept. 14.—Figures compiled by the federal department of trade and commerce show that Canadian gasoline sales in May were still on the upgrade compared with the same month of 1934. Of the seven provinces reporting, six including both Ontario and Quebec, showed increases, the only decline being in Prince Edward Island. Sales in the five months of 1935 for the seven provinces reporting totaled 154,388,000 gallons, while sales for all nine provinces in the 1934 period amounted to 154,413,000 gallons.

Canadian Fields

Jumping Pound Area Scene of Renewed Lease Activity

By VICTOR LAURISTON

CHATHAM, Ontario, Sept. 14.—Extensive leasing has begun in the Jumping Pound area, west of Calgary and north and west of the Turner Valley Field. This area has been inactive since 1929. A few shallow tests were drilled in 1914 and subsequently, but in 1927 Imperial Oil, Ltd., started its No. 1 Bow River in LSD 15, Section 12-25-5w5. The Jumping Pound structure was thought to be similar to the Turner Valley and the deep drilling was intended to test the potential naphtha horizon of the Madison limestone. No. 1 Bow River encountered faulting, the Benton reverting to the Belly River formation at 1,650 feet and recurring at 3,600, with a fair gas just above the contact at 3,568 feet. Drilling was discontinued, still in the second occurrence of the Benton shale, at 5,330 feet.

No. 2 Bow River was started somewhat south and east in LSD 11, Section 31-24-4w5. The log showed: Blairmore, 420 feet; Benton, 720 feet; Blairmore repeated, 770; Home sand, 2,716; Dalhousie, 3,174; Kootenay, 3,200, with a recurrence of the Belly River formation indicated at 3,255 feet, drilling being discontinued at 3,530 feet. Ten gas shows were encountered, and two oil shows at 705 and 1,068 feet. The gas approximated a fair commercial production, and the oil show at 705 feet indicated around 25 bbls. a day of high grade crude.

It is understood interests associated with Imperial Oil, Ltd., will drill a shallow test to take production from the oil horizon at 705 feet, and if results are satisfactory systematic development of the shallow oil sand will be undertaken.

Turner Valley Field

In Section 28-18-2w5, South Turner Valley Field, British Dominion Oil & Development Corp.'s No. 4, LSD 6, is more than 200 feet in the Madison limestone below 6,040 feet. It got a little more wet gas with a heavy naphtha content, but has not reached the main porous horizon. In the same section Renfrew Royalties' No. 1 Morris & Goodfellow, LSD 3, is below 5,800 feet and expected to get the Madison inside the next 200 feet.

In the North Turner Valley Field Model Oils' No. 3, LSD 1, Section 22-20-3w5, is below 4,327 feet and logging about 190 feet lower than Model's No. 1 producer in LSD 8, same section. Model's No. 1 got the lime at 5,800 feet. Farther south and west, Phillips Royalties' No. 1, LSD 16, Section 16-20-3w5, is below 1,840 feet after cementing 16-inch casing around 1,500 feet.

In Section 21-18-2w5, South Turner Valley, Union-Freehold Oil Corp.'s No. 1, LSD 8, has cemented whipstock to sidetrack lost tools. The hole bottoms in the top of the Madison lime at 5,610 feet. Location is about one-half mile south of Highwood-Sarcee Oils' No. 1, and if the Union-Freehold's No. 1 gets production it will prove an important extension to the field, probably leading to early resumption of several tests in Section 21-18-2w5. Myers & Wright's No. 1, LSD 14, offsetting Highwood-Sarcee's No. 1, is standing at 2,260 feet; Northwest Royalties' No. 1, LSD 5, at 3,300 feet, is on the west side of the fold; and Highwood Royalties' No. 1, LSD 3, standing at 2,460 feet, is also on the west side and the farthest south test yet started. Highwood-Sarcee Oils' No. 2, LSD 1, same section, located some months ago, will start soon, with the British American Oil Co. assisting in the financing.

Turner Valley Deliveries

Deliveries to Calgary refineries from the Turner Valley Field in August reached a new peak for the year, totaling 83,930 bbls., against 83,480 bbls. for July. The increase is largely due to operation of the second gasoline absorption plant of Royalite Oil Co. in South Turner Valley. Total deliveries for the eight months of 1935 are 655,748 bbls., with indications that the total for the year will again exceed 1,000,000 bbls. Actual production is somewhat higher, as there are substantial deliveries at the well head.

The August deliveries included 7,388 bbls. of naphtha and light crude to Bell Refining Co., while Imperial Oil Refineries took 4,507 bbls. of clear naphtha, 69,860 bbls. of discolored naphtha and 1,975 bbls. of light crude.

Tests in the Foothills

In the Forest Reserve area west of Olds, Hunter Valley Oil Co.'s No. 1 McLaren, LSD 12, Section 13-31-10w5, is in hard formation below 5,095 feet.

On the Moose Dome, west of Calgary, Moose Oils' No. 2, LSD 8, Section 29-22-6w5, is below 210 feet after sidetracking lost bailer. East of North Turner Valley, McLeod Oil Co.'s New Valley No. 1, on the New Valley structure, LSD 4, Section 6-21-2w5, is below 2,711 feet.

On the Highwood-Sinclair structure south of Turner Valley, Maple Leaf Royalties' No. 1 Banner, LSD 6, Section 34-17-3w5, is below 2,217 feet with some increase in gas and further oil shows. Farther south on the Pekisko structure, Pekisko Hills Co.'s No. 1, LSD 6, Section 6-17-2w5, is below 3,455 feet after passing from the Madison lime into the Banff shales at 3,030 feet.

On the Watson structure, north and west of Lundbreck, Raven Oils' No. 1, LSD 1, Section 20-9-2w5, is deepening from 1,225 feet after making water shutoff. Mar Jon Oil Co.'s No. 3, LSD 3, Section 4-10-2w5, is below 3,050 feet in the maroon shales overlying the McDougall Segur sand.

In the old Oil City Field, Waterton Lakes Park, Oil City Royalties' No. 1, Section 30-1-30w4, is below 2,163 feet.

Weymarn Petroleums' No. 1 on the Black Diamond structure, LSD 1, Section 3-20-3w5, has been standing at 4,003 feet, after getting a gas show at 3,886 feet. The structure is south and west of the North Turner Valley producing structure and close to Phillips Royalties' No. 1, now drilling. Weymarn Petroleums also has two unfinished tests in the Pincher Creek area near Waterton Lakes Park. Weymarn's No. 1 Mount Royal, LSD 3, Section 7-6-1w5, shut down at 975 feet after getting three gas shows in the Blairmore formation. Weymarn's No. 2, LSD 5, same section, a little north and west, started in the Blairmore and got the Kootenay at 1,920 feet with gas shows in both formations and three oil shows in the Blairmore. It has been standing at 2,478 feet and is apparently within a few hundred feet of the porous horizon of the Madison limestone. It is a little south of the Watson structure, where several tests are under way.

Border Fields

On the Comrey structure, southeastern Alberta, the joint test of the McDougall-Segur and McLeod companies is under way. The syndicate to handle the test has been incorporated as the McDougall-McLeod Co. The original test, spudded last year by the D. A. MacDonald interests on Imperial Oil acreage in Section 9-1-5w4, and standing at 208 feet, was found blocked with iron and cavings, so the rig was skidded to a new location a short distance away in the same LSD. Surface pipe is being set at 225 feet. It is planned to drill to the Madison limestone around 3,300 to 3,500 feet.

Drilling in Ontario

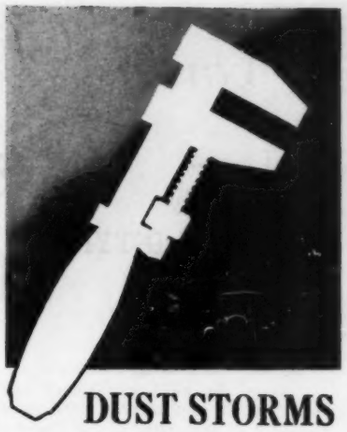
In the Dover Field, Kent County, Ontario, E. P. Rowe's No. 1, Vital Duphette farm, Lot 2, Concession 4, Dover East Township, is in the Trenton limestone below 3,000 feet. South of the River Thames, E. P. Rowe's No. 1 Bruette farm, Lot 5, Front Concession, Raleigh Township, is below 2,900 feet. Equipment is being moved for Central Pipe Line Co.'s No. 3, Eli Jubenville farm, Lot 2, Front Concession, Dover West Township.

Erie Gas, Ltd., of Toronto, which has been active in the Norfolk Field in Ontario, has acquired a one-fourth interest in 10,500 acres of oil and gas leases in the southwest corner of Miguel County, New Mexico, from the Dragon Oil Corp. Dragon will handle the drilling, and is starting its No. 1 well. The Erie company is marketing gas to the Dominion Natural Gas Co. from its producers in Norfolk County.

In the Eden Field, Elgin County, C. A. Simpson and associates' No. 3, Lot 23, Concession 8, Bayham Township, is drilling.

Accountants Meeting

The Petroleum Accountants Society of Tulsa will open its 1935-36 season Thursday, September 26, in the Mayo Hotel, Tulsa. Following the election of directors to succeed the three whose terms expire this year, there will be a short entertainment period after which officers for the ensuing year will be elected. M. H. Massey is now president of the society which has a present membership of 98.



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1942

Kansas Developments

By JAMES McINTYRE

SCHULTE POOL AND OXFORD MAKE SENSATIONAL RECORD

The Oxford Pool in Sumner County, staged the most sensational performance of any Kansas pool since the days of Towanda, Butler County, back in 1917-18. Closely following the remarkable production of Shell Petroleum Corp.'s No. 1-A Rothwell, 1,046 feet south and 212 feet west of center Section 14-32-2, which produced a potential of 12,177 bbls. in 24 hours from Dolomite at 2,797-2,871 feet, after being deepened from 1,261 feet, three other big wells were brought in in the latter days of the week.

Amerada Petroleum Corp. and Sunray Oil Co.'s 1-A Gassaway, NE NE SW Section 14-32-2e which was a 1,700 bbl. well at 1,950-2,077 feet, several years ago, was deepened to Dolomite at 2,801 feet. It flowed 200 bbls. an hour while drilling to 2,830 feet, but at 2,837 feet it flowed 1,638 bbls. in one hour or at the rate of 39,312 bbls. per day. It was shut in for tankage at the end of the one hour's big production. Then Barnsdall Oil Co. and Lario Oil & Gas Co. broke into the picture with a whale of a well No. 2-A Wenrich CNL NE NW Section 23-32-2e. It produced 602 bbls. per hour for 15 hours at 2,806-59 feet.

Amerada Petroleum Corp. and Sunray Oil Co.'s No. 6 Gassaway, NW SE SW Section 14-32-2e had Dolomite at 2,832-2,905 feet and flowed 715 bbls. the first hour, 650 bbls. the second, and 623 bbls. the third, a total of 1,988 bbls. in three hours or at the rate of 15,904 bbls. per day.

When these Oxford wells have been given a 24 hour potential test it will be made known whether or not they are bigger wells initially than the two big Gypsy Oil Co. wells on the Shumway farm in Section 11-26-4, in Butler County, completed 18 years ago. No. 5 Shumway was credited with an initial production of 15,000 bbls. and produced 2,225,000 bbls. of crude oil during a period when the price of oil ranged from $2 to $3.50 per barrel. No. 13 Shumway was a 17,000-bbl. initial producer but did not hold up very long and was not in the same class as No. 5 as an all time producer. The Shumway farm of 160 acres was one of the very richest spots in the Mid-continent Field.

Champlin Refining Co. failed to get any pay when it deepened its No. 1-B Latta, SW SE NW Section 9-30-2w, Sumner County. It was drilled from 3,057 feet, old total depth, to 3,255 feet. Water broke in at various levels on the way down.

Allison & Fitzwilliams' wildcat No. 1-B Hitchcock, SW SW NE Section 16-30-1w had Wilcox sand at 3,963 feet and drilled to 4,032 feet. It had nothing but water and was abandoned.

Amerada Petroleum Corp. and Sunray Oil Co. were moving in rotary for No. 3 Gassaway, 685 feet from E and 1,100 from S lines of SW¼ Section 14-32-2, an old well to be drilled deeper; Barnsdall Oil Co. and Lario Oil & Gas Co. were moving in material for No. 9-A Wenrich, 660 feet from N and 1,094 ft. from E lines of NW¼ Section 23-32-2.

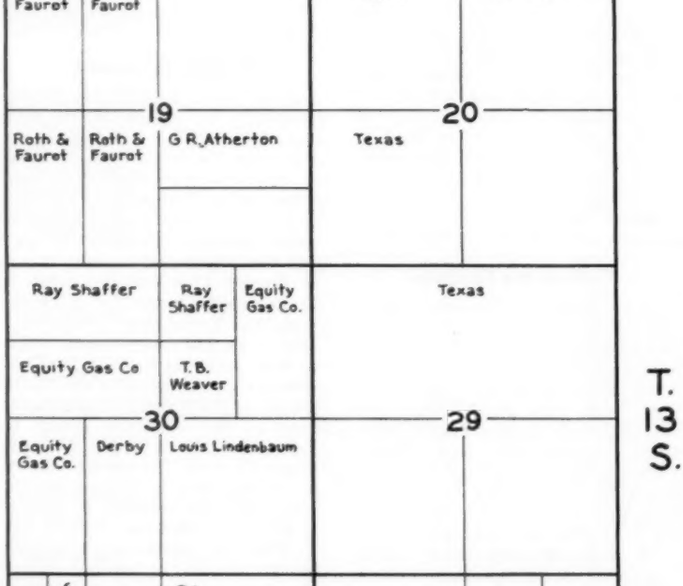
E. B. Shawver's No. 3 Erker, NE SE NW Section 33-31-1w flowed 130 bbls. in 24 hours from Chat topped at 3,641 feet, total depth 3,689 feet.

Schulte Pool Looms Again

The Schulte district in Sedgwick County, about 6 miles southwest of Wichita, which created some stir last year with a well of D. R. Lauck and others on the Jordan farm in Section 6-28-1w, later events causing the excitement to subside, figured in the past week in a startling manner when Lauck and others' No. 3 Jordan, C NW NW SE Section 6-28-1w, got Misener sand at 3,670 feet and flowed 550 bbls. of oil in 1 hour and 30 minutes. It was then shut in for additional gathering line facilities. The well was estimated by Wichita operators as good for 5,000 bbls. a day at least. Its initial 90-minute flow was at the rate of 8,800 bbls. a day.

New Pools in Russell

Russell County was in the limelight again with another prospective pool following the discovery of oil in Section 34-15-2w, by Brouk & Bailey. The latest discovery is in Roth & Faurot's No. 1 Shaffer, C NW NE Section 31-13-12w, near the town of Bunker Hill. It had the top of Oswald lime at 2,965 feet, pay at 2,979-81 feet, total depth. It filled 800 feet with oil through 20 feet of cavings and was bailed 12 times with a 24-foot 8-inch bailer without lowering the fluid level. This latter well is highly regarded, but at the close of the report neither wells' real worth was definitely known.



—Mid-Continent Map Co., Tulsa.

Roth & Faurot open a pool with No. 1 Shaffer, NW NE Section 31-13-12w, Russell County, the second pool for the county in two weeks

Kansas

Estimated daily average production of Kansas for the week ending September 14 and for the preceding week is as follows:

	Barrels	
	Sept. 14	Sept. 7
Oxford City	6,125	3,575
Burrton	17,225	14,350
Ritz-Canton	7,275	8,650
Hollow	2,750	3,950
Voshell	4,550	3,375
Nikkel	3,125	3,075
Sedgwick County	7,375	7,750
Ellsworth County	6,425	5,075
Barton County	1,965	1,750
Rice County:		
Chase Pool	15,825	10,900
Raymond Pool	2,600	1,910
Remainder	7,653	5,350
Ellis County	415	400
Kingman County	516	530
Stafford County	2,375	1,323
Russell County	10,575	10,025
Greenwood County	10,900	10,900
Butler County	18,600	18,500
Other pools	21,126	17,437
Total Kansas	147,400	128,825

Rice County

In Rice County Slick-Pryor & Lockhart, Inc., and others completed No. 1 Moran A, SW SW NW Section 4-18-10w. It made a potential of 993 bbls. from 3,218-50 feet, total depth.

Skelly Oil Co.'s No. 1 Volkland, SE SE NW Section 27-18-10w, produced 79 bbls. a day in a four day test from Quartzite at 3,159½-69 feet and was completed.

Slick, Pryor & Lockhart Inc. and others' No. 4 Orth, SW NW NE Section 27-18-10w was completed as a gas well. It had Kansas City lime at 2,882-2,935 feet, total depth, and the well produced 17,000,000 feet of gas initially.

Three Rivers Oil Co.'s wildcat test No. 1 Buehler, NW cor. Section 17-18-8w was a hole full of water at 3,425-35 feet, total depth and was abandoned.

Gypsy Oil Co. completed a good well in No. 4 Steckel, C E half SW NW Section 31-19-10w. It produced 1,606 bbls. in 23 hours initially at 3,287-3,300 feet, total depth.

Phillips Petroleum Co.'s No. 6 Link, SE NE SW Section 21-19-9w, was completed as a water disposal well. It was "dry" in Siliceous lime at 3,252-54 feet and was drilled to Granite at 3,725-42 feet, total depth. It took 65 bbls. of water per hour when tested as a disposal well.

Tom Palmer and Atlantic Oil Producing Co.'s No. 3 Specht, SE SE SW Section 16-20-10w is a 775-bbl. completion at 3,350-57 feet, total depth. It had been acidized. All the above wells produced from Siliceous lime unless otherwise stated.

New work in Rice County included C. B. Davis and others' No. 6 Dueser, C E half NW SW Section 31-19-10w, spudding with rotary; Sinclair Prairie Oil Co.'s No. 8 Volkland, NW SW SE Section 20-19-9w, cellar; Sinclair Prairie Oil Co.'s No. 6 Wallace.

SW NE SW Section 29-19-9w, cellar.

Vickers and others' No. 1 Gouldner B, NE SE NW Section 16-18-9w was plugged back to 3,000 feet after geting water in Siliceous lime at 3,274-85 feet. Aylward and others' No. 1 Rickard, SW SW NW Section 22-18-9w a wildcat, was plugged back to 3,260 feet after finding a hole full of water at 3,376-3,400 feet.

Shell Petroleum Corp. and others' No. 6 Ploog, 440 feet N and 440 feet E of Center Section 33-18-9w pumped 580 bbls. of oil and 1 bbl. of water in 24 hours, during which it was down two and a half hours. The well had been acidized in Siliceous lime at 3,233-34 feet.

Phillips Petroleum Co. and Indian Territory Illuminating Oil Co.'s No. 3 Krampe, SW SW SE Section 31-19-10w, pumped 490 bbls. in seven hours at 3,281-91 feet.

E. F. Jones' No. 1 Wolfe, 1,470 feet N and 130 feet E of SW corner Section 32-19-10w filled with oil in 12 hours at 3,278-80 feet. It had not been tested. This lease is said to be 180 feet by 130 feet in size or a little more than a half acre.

Smith, Ash & Phillips' No. 4 Beyers, NW SE NW Section 21-19-9w got Siliceous lime at 3,255-69 feet. It pumped 81 bbls. of oil and 70 bbls. of water in 24 hours and was then acidized.

Sinclair Prairie Oil Co.'s No. 8 Thompson, NE NE NW Section 21-20-10w pumped 228 bbls. in 12 hours at 3,352-56 feet. It had been acidized.

Empire Oil & Refining Co.'s No. 7 Proffitt, SW SW SE Section 6-20-9w pumped 10 bbls. per hour after Siliceous lime at 3,309-85 feet had been acidized.

Gypsy Oil Co.'s No. 1 Miller, SE SE NE Section 9-20-9w, got pay at 3,258-75 feet and shot it with 25 quarts. The hole filled 700 feet with oil but had not been tested.

Gypsy Oil Co.'s No. 1 Hartle, NW corner Section 15-20-9w pumped 624 bbls. of oil in 22 hours at 3,211-31 feet. It had not been acidized.

Ellsworth County

In the Lorraine Pool in Ellsworth County Vickers Petroleum Co. and others' No. 4 Janssen, SE SW NW Section 13-17-9w, a completion produced a potential of 575 bbls. of oil and 400 bbls. of water from Siliceous lime at 3,219-21½ feet, total depth.

Empire Oil & Refining Co. completed No. 10 Rolfs, SW NE NE Section 14-17-9w made a potential production of 1,914 bbls. in 24 hours from Siliceous lime at 3,184-88 feet, total depth, and was put on the completed list.

Skelly Oil Co. completed No. 2 Dees, SE NE SW Section 14-17-9w, a 2,346-bbl. well from Siliceous lime at 3,171-74 feet, total depth 3,175 feet. This well pumped 1,746 bbls. the first day, but the 2,346-bbl. production was made on its potential test.

Slick-Urschel Inc. and others were moving in material for No. 2 Heiken A, SW SW NW Section 25-17-10w. Empire Oil & Refining Co. made location for No. 13 Rolfs, SE NW NE Section 14-17-9w.

Franco Central Oil Co. and others' No. 1 Frevert, SW corner Section 8-17-10w, a wildcat, had 600 feet of fluid in the hole from Siliceous lime at 3,320 feet, total depth 3,355 feet. It had not been tested.

Rosenthal, Beardmore, Hinkle and others' No. 1 Becker, NW NW SW Section 25-17-10w was acidized with 1,500 gallons in Siliceous lime at 3,243-71 feet and pumped 200 bbls. of oil and 60 bbls. of water in 24 hours. It was not a completion.

Atlantic Oil Producing Co.'s near completion, No. 9 Rolfs, SW NW SE Section 14-17-9w was shot with 30 quarts in Siliceous lime at 3,188-93 feet and pumped 240 bbls. in 24 hours.

Russell County

Central Petroleum Co.'s No. 1 Ginther, 440 feet from S and 440 feet from W lines of SE¼ Section 19-12-15w, in Russell County, was a hole full of water at 3,376 feet and was abandoned. Conglomerate was topped at 3,320 feet. It had nothing but water from Oswald lime topped at 3,047 feet, water at 3,125 feet.

Coralena Oil Co. got a hole full of water in Siliceous lime at 3,348-59 feet in No. 1 Giegler, SE SE NE Section 11-15-14w and abandoned the test, a wildcat.

Central Petroleum Co. made a location for No. 1 Boxberger, NW NW NW Section 36-15-15w, the only new work reported in the county.

Central Petroleum Co.'s No. 1 Ruff, SE SE SW Section 19-12-15w, pumped 720 bbls. in 18 hours from Oswald lime at 3,007-22 feet, which had been acidized.

Bridgeport Machine Co.'s No. 1 Polcyn, NW NW NE Section 10-14-15w, pumped 193 bbls. in 18 hours from Oswald lime at 3,030-3,102 feet, which was acidized.

Bridgeport Machine Co.'s No. 1 Michaelis, NE NE SE Section 33-15-14w pumped 1,115 bbls. of oil in 21 hours from Siliceous lime at 3,347-50 feet which had not been acidized.

Graham County

Helmerich & Payne's wildcat in Graham County, No. 1 Stites, C SW Section 8-10-22w reached a depth of 4,220 feet without finding commercial pay and was to be plugged back. It topped Siliceous lime at 4,196 feet.

Rooks County

Phillips Petroleum Co. made a location for No. 1 Toepffer, C SE SE Section 36-8-18w, in Rooks County.

Trees Oil & Findesiss' No. 1 Johnson, SW SW SE Section 26-10-19w, Rooks County wildcat, at a depth of 3,349 feet swabbed about 100 bbls. of oil and 2 bbls. of water in four and a half hours, swabbing down to 45 feet off bottom. Oswald lime was topped at 3,285 feet.

Another Rooks County wildcat was not showing so well. Smith & Ash's No. 1 Nelson, NW NW NE Section 27-10-16w was drilling in Granite at 3,783 feet. It topped Oswald at 3,345 feet and Conglomerate at 3,634 feet, and the hole filled with water at 3,693 feet.

Barton County

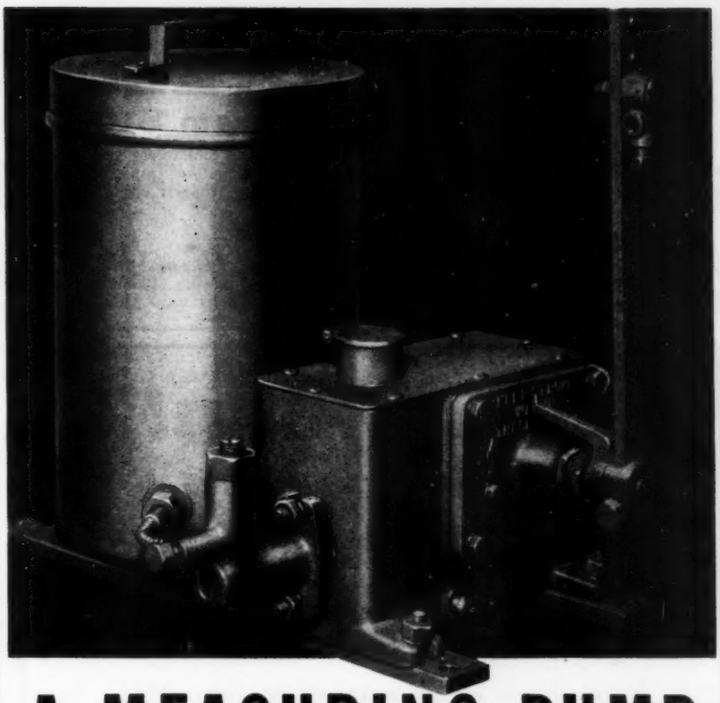
Darby Petroleum Co.'s No. 2 Kultgen, NE NE NW Section 16-16-12w was completed in sand at 3,346½-52 feet. It made a potential production of 320 bbls. in 24 hours.

Gypsy Oil Co.'s No. 2 Steckel, SE NE NE Section 1-20-11w swabbed 564 bbls. of oil in 11 hours from Siliceous at 3,258-75 feet.

Kingman County

Skelly Oil Co.'s No. 2 Interurban, 330 feet S and 440 feet W of center Section 30-27-10w, Kingman County, flowed 171 bbls. of oil in 19 hours from Kansas City lime at 3,402-47 feet.

D. R. Lauck and others had rig up for No. 1 Skilling C SE NE SW Sec-



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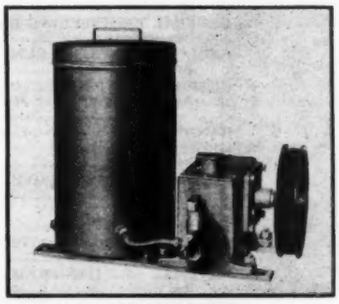

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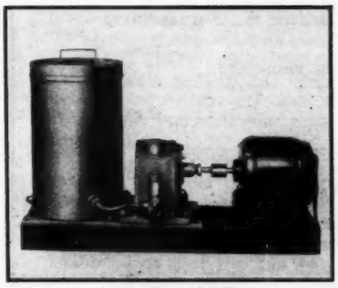

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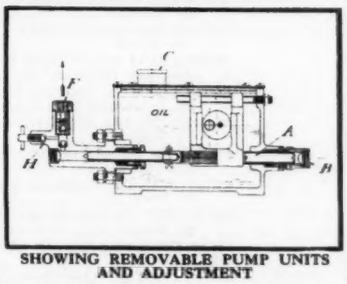

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THE OIL AND GAS JOURNAL

Tulsa, Oklahoma

tion 33-27-8w, a corrected location in Kingman County.

McPherson County

Lario Oil & Gas Co. and Shell Petroleum Corp. completed a small well in No. 1 Lewis, NW corner Section 36-19-2w, Ritz Pool, McPherson County, deepened from 3,391 feet to Wilcox sand at 3,429-30 feet, where it got a hole full of water, and plugged back to 3,420 feet. Viola lime was acidized and the well made 30 bbls. a day for four days, with an accompaniment of 45 bbls. of water per day.

Washabaugh and others are reported to have abandoned the location for No. 1-A Berg, SW SW NE Section 15-20-3w.

Tom Palmer & Sinclair Prairie Oil Co.'s No. 3 Anderson, got pay at 2,311-16 feet and the hole filled 1,300 feet with oil. It was acidized but not yet tested.

Stafford County

Stanolind Oil & Gas Co. completed No. 1 Allen, SW NW SE Section 31-22-11w, in the Richardson Pool, Stafford County. It produced 566 bbls. in an 18-hour potential test. It had previously produced 500 bbls. in 18 hours. It produces from Siliceous lime at 3,542 feet, total depth 3,568 feet. It had not been acidized.

Reno County

W. C. McBride, Inc., completed a failure in No. 1 Dick, SE SW SW Section 36-22-4w, Reno County. It showed nothing but water at a total depth of 3,397 feet.

Harvey County

Imo Oil & Gas Co.'s No. 1 Sperling, SE NE NE Section 23-22-4w, Harvey County, an old well deepened from 3,345 feet to Wilcox sand at 3,436-68 feet, and later to 3,506 feet without finding Siliceous lime, was plugged back to the original total depth where it produced 20 bbls. in 24 hours with 900 bbls. of water. Wilcox sand showed a little oil.

Barber County

Lario Oil & Gas Co. which opened the Whelan Pool in Barber County last year completed No. 2 Whelan, C SE NW Section 32-31-11w. It was drilled to Siliceous lime at 4,939 feet, total depth 4,975 feet, which was dry, and was plugged back to 4,510 feet and then put to 4,340 feet, but could find no oil. It was abandoned.

L. H. Wentz' No. 1 Skinner, 560 feet from N and 600 feet from W lines of NE¼ Section 29-31-14w, Barber County, a wildcat, was at a total depth of 4,556 feet. The well swabbed 20 bbls. of oil in 24 hours with 1,500,000 feet of gas.

Greenwood and Woodson

Oko Oil Co.'s No. 22 Sherman-Kelly, 620 feet from S and 200 feet from E lines of SW¼ Section 14-23-13, Greenwood County, was completed, a 25-bbl. well after a shot in sand in Mississippi lime pay at 1,775-97 feet.

Houston-Oklahoma Oil Co.'s No. 1 Metcalf, SW NW NW Section 34-23-13 was dry and abandoned at 1,780 feet.

Over the line in Woodson County, C. Sheedy's No. 1 Snattinger, C E half NE NE Section 3-26-14 was dry and abandoned at 1,600 feet. It was a wildcat test.

Aikman & Braden's No. 3 Povemire, SE NW NW Section 14-22-13 is an estimated 50 bbl. well after a shot in Burgess sand at 1,834-47 feet, total depth 1,875 feet, in Mississippi lime. It was not completed.

Sinclair Prairie Oil Co. had rig up for No. 1 Martindell, 980 feet N and 980 feet W of SE corner Section 30-23-10. Oko Oil Co. had machine in for No. 23 Sherman-Kelly, NE corner SE SW Section 14-23-13.

Cowley County

In Cowley County, Alma Petroleum Co.'s No. 1 Finch, NE NW NE Section 7-35-3 made a 75-bbl. completion, producing from Mississippi lime at 3,495-96 feet, total depth.

Earl Wakefield made a location for No. 1 Hanna, NE NE SW Section 2-31-4. Alma Petroleum Co. made a location for No. 2 Gregory, SE SW SE Section 6-35-3.

Rush County

In the Otis Pool, Rush County, Schermerhorn's No. 1 Hagelmantz C SE Section 11-18-16w was acidized at 3,388-93 feet, total depth 3,400 feet. The hole filled with oil 225 feet in 12 hours. It was reacidized and not yet tested.

Ellis County

Twin Drilling Co. has cellar dug for No. 1 Goetz, SW SW SE Section 3-14-17w, a wildcat, in Ellis County.

Morris County

Home Gas Co. was shut down at 500 feet in No. 1 Ball, C SW NE Section 17-16-7, in the Wilsey gas field, Morris County.

Lyon County

Aikman & Braden made a location for No. 1 Hatch, 550 feet east and 800 feet south of C Section 35-21-13, Lyon County.

Sedgwick County

Faulkner and others were cleaning out to deepen No. 1 Underwood, SW SW SW Section 23-25-1w, Sedgwick County. Eight-inch pipe was set at 2,450 feet.

Butler County

Rex & Morris were rigging up machine for No. 1-A Shreeves, C N half NE SE Section 25-26-4, Butler County.

Canadian Crude Output Shows Decrease

OTTAWA, Ontario, Sept. 14. — Crude petroleum production from all Canadian fields for June amounted to 120,119 bbls., compared with 123,801 bbls. in May and 110,115 bbls. in June, 1934. For the six months of 1935 the production totaled 714,341 bbls., a drop of .4 per cent from the total of 717,528 bbls. for the corresponding 1934 period.

New Brunswick production in June was 1,124 bbls. against 627 bbls. in May; and 5,833 bbls. for the 1935 period compared with 5,595 bbls. in the six months of 1934. Ontario production of 13,812 bbls. in June compared with 17,686 bbls. in May. For the six months of 1935 Ontario produced 80,728 bbls. compared with 67,702 bbls. in the same period last year. Alberta production was 105,183 bbls. in June against 105,488 bbls. in May; and 627,780 bbls. in the 1935 period against 643,103 bbls. in the six months of 1934.

Paul Bray, of the purchasing department, Skelly Oil Co., Wichita, Kans., has been transferred to the warehouse department of the company at El Dorado, Kans.

Michigan Field Report

BREATHING SPELL FOLLOWS WEEK OF RECORD BREAKING

By
PAUL A. ELLIOTT

MUSKEGON, Mich., Sept. 16.—After an all-time record-breaking week opening September, Michigan oil operators had a breathing spell in the last week with only one large completion in the Crystal Pool and several smaller wells in others, aggregating more than 5,000 bbls. of new initial.

Average daily production of all Michigan fields showed a slight decline when most of the large producers in the Crystal Pool were pinched in with heavy back pressure to protect the crude market and guard against possible water troubles.

Toward the latter part of last week, however, operators again were looking to the northwest trend into Ferris Township, Montcalm County, ahead of Crystal production to result in other major developments within a few days. Many new locations were announced as the Crystal play continues at its height.

Crystal Field

The one large completion was the Daily Crude Oil Co.'s No. 3-A J. Tow, NE SE SE Section 3-10n-5w, Crystal Township, which came in with an initial production of 265 bbls. an hour but was pinched back to 46 bbls. with 475 pounds back pressure. Dundee limestone was topped at 3,169 feet and drilling completed at 3,180 feet. The well is a west offset to the Pure Oil Co.'s No. 1 Mangus, a 5,000-bbl. well.

The Shell Petroleum Corp. was completing its first well in the Crystal Field, the No. 1-A L. J. Smead, SE NE SE Section 2, Crystal Township, which made 235 bbls. during the first 24 hours after topping the Dundee at 3,190 feet and drilling to 3,197 feet. It was being treated with acid for increased flow.

Five drilling tests in Crystal Township were nearing completion in the Dundee as follows: Pure Oil Co.'s No. 2-A Mangus, SW NW SW Section 2, north offset to its No. 1 Mangus; Pure's No. 1 Preston, NE SE NE Section 3, south offset to the Daily-Robbins No. 1, brought in for 270 bbls. an hour the week before; Gordon Oil Co.'s No. 1 William Strait, NE NE NW Section 3, south offset to the Mammoth Petroleum Corp.'s No. 1 Strait, Section 34, Ferris Township, also completed the first week of the month; and two Rowmor Corp. tests, No. 1 John and David Husted, SW NE SW Section 2, and No. 2 Husted, NW NE NW, same section.

Montcalm Gasser

Almost a square mile was added to the Millbrook Township, Mecosta County gas field last week by Gordon Oil Co.'s completion of the No. 1 Phillip Trecy, C SE NW Section 10-12n-7w, Belvidere Township, Montcalm County, for an open flow capacity of 14,000,000 feet daily in the Michigan Stray sands at 1,265 feet.

The new Belvidere producer is three-fourths of a mile west of the Michigan Exploration-Forgar, and a mile from producers northeast and northwest.

Ferris-Montcalm

The Isabella Oil Co. and Isaiah Leebove, head of the Mammoth Petroleum Corp., reported 1,200 feet of oil in the hole in their No. 1-A William Strait, SW SW SW Section 34-11n-5w, Ferris Township, Montcalm County, a mile west of the proved area in the Crystal-Ferris Field though it was drilled into water at 3,235 feet.

Six other Ferris Township tests were nearing the Dundee, including several important extension projects. McClanahan Oil Co.'s No. 1 Ira J. McConkie, SW NE SE Section 33, Ferris Township, about 1½ miles northwest of the Mammoth-Isabella-Strait No. 1, previously brought in as an extension producer, was about to drill in. Half a mile west of the same Strait well, John F. Martin's No. 1 William Strait, SE SE SW Section 34, Ferris Township, was due for completion this week.

Operators were still testing Marshall Bauman and others' No. 1 G. Ries, SE NW NE Section 34, which showed water for the second time after cementing off a flow struck at 3,222 feet.

Fred Turner and others' No. 1 W. C. Taylor, SW NW SE Section 35, Ferris Township, had been cased and was ready to drill into the Dundee. Ide Oil & Gas Corp. and the Prudential Oil & Gas Corp.'s No. 1 Delos A. Towle, SW SW SW Section 6, Ferris Township, was still shut down at the casing point above the Dundee. It is a wildcat test.

Another test nearing the Dundee level was A. J. Gray's No. 1 Kimball, NE NE SW Section 32, located more than 1½ miles west of the McClanahan-McConkie.

Other Montcalm Tests

A show of oil in the Dundee and a dry hole were reported from two wildcat tests in Montcalm County, the former in Day Township and the latter in Bushnell Township.

The Jones-Woodruff Oil Co., Inc., reported a show of oil in the top of the Dundee at about 3,150 feet in the No. 1 M. Martin, SW SE SE Section 29-11n-6w, Day Township. Traverse was topped at 2,935 feet and formations were reported running about 35 feet higher than in the Neff test, drilled a year ago in Section 22, Day Township, in which a show of oil and gas also was encountered in the Dundee, though it failed to make commercial production.

D. W. Sessions' No. 1 J. F. Sessions, SE SW SW Section 2-9n-6w, the Bushnell Township wildcat, was completed dry in the Dundee at a total depth of 3,138 feet after topping the formation at 3,115 feet. A heavy flow of water was struck 13 feet in where drilling was discontinued. No show was reported.

The Gordon Oil Co. was drilling at more than 3,400 feet in the No. 1 Keyt, NW NW NW Section 21-12n-8w, a Cato Township wildcat, and expecting to test the Dundee limestone soon.

Gratiot County

In the vicinity of the Crystal Field, Mid-State Development Co.'s No. 1 Richard W. Anderson, SE NE NE Section 20-11n-3w, Arcada Township, Gratiot County, was still shut down above the Dundee at 3,215 feet.

Newark Gas & Oil Syndicate's deep test, the No. 1 George Beck, NE SE NE Section 29-10n-3w, Newark Township, same county, was drilling at more than 4,000 feet.

Midland County

One of two tests previously drilled into the Dundee pay sands with assured commercial production showed a good increase after acid treatment, adding 400 bbls. of new production in the Porter Pool.

Rex Oil & Gas Co.'s No. 1 Mates, NE NE SE Section 22-13n-1w, flowed 210 bbls. during the first 18 hours after it was opened, a considerable increase over the original output of 55 bbls. swabbing. Dundee was topped at 3,382 feet and drilling completed at 3,419 feet in the southeast extension of the state's largest producing territory.

Pure Oil Co.'s No. 16 Mina Narmore, C N N SE Section 15, same township, showed no increase over its original 145 bbls. a day after acid treatment in the Dundee, first encountered at 3,367 feet and drilled to 3,426 feet with the pay at 3,414 feet.

Pure's No. 17 Mina Narmore, C N S SW Section 15, same township, was drilling into the Dundee.

W. Hunter Atha's latest test in Mount Haley-Midland, the No. 1 H. Doyle, SE SE SW Section 33-13n-1e, failed to strike any show in the Dundee after being drilled to about 3,500 feet and probably will be abandoned as a dry hole. It was drilled a mile south of Atha's No. 1 Moran, only producer in the township. The Doyle test is the fourth dry hole Mr. Atha has drilled since striking the one producer.

Isabella County

A new 125-bbl. producer, one of the best completed in Isabella County in several months, was drilled into the Dundee pay sands last week by the McClanahan Oil Co., its No. 2 Maria T. Sweeney, NW NW NE Section 33-15n-3w, Denver Township, near the Leaton Field. Dundee was struck at 3,575 feet and the well drilled to 3,627 feet. It will be treated with acid.

On a neighboring lease, Henry L. McEvoy's No. 2 Stanley Demski, SW SW SE Section 28, Denver Township, also was drilling into the Dundee and already reported a show of oil in the top of the pay. Casing was run at 3,373 feet after the limestone was struck at 3,369 feet.

Ogemaw County

A new development which may result in much new drilling and new production in the West Branch Township area of Ogemaw County resulted with the deepening and further acid treatment of Joseph Molloy and associates' No. 1 C. Finerty well, NW SW Section 19-22n-2e, on the northeast edge of the pool near the village of West Branch. Originally completed last January at a total depth of 2,733 feet after topping the Dundee limestone at 2,553 feet, the Finerty flowed 230 bbls. in the first nine hours after being deepened 20 feet into a third streak of pay and treated with 2,000 gallons of acid. The old well, which already had produced about 6,000 bbls. from the upper two pays, made several flows 20 to 30 feet over the crown block and continued to flow intermittently with occasional swabbing. It was first drilled by Thompson Brothers. Before deepening it had been pumping about 28 bbls. of crude daily after a 1,000-gallon acid treatment.

Two other tests in Ogemaw County were shut down above the Traverse and Dundee formations nearly ready to drill in, namely: H. C. Nelson's No. 2 State of Michigan, SW SE SW Section 31-22n-3e, Churchhill Township, and the Capitol Oil & Gas Co.'s No. 1 Country Club, SW SW SW Section 20-22n-2e, West Branch Township.

Saginaw Field

Two small Berea producers and a dry hole were completed in Birch Run Township, Saginaw County, last week by the Smith Petroleum Co.

The No. 4 Edward E. Parlberg, NW NW SE Section 20-10n-6e, was good for about 25 bbls. a day in the Berea topped at 1,527 feet. The No. 2-A Frank M. and Agnes C. Morse, SW SE NW, same section, made 20 bbls. daily, topping the Berea at 1,531 feet. The same company's No. 3 Alvin H. and Carrie C. Totten, NW NE SE Section 20, was dry when it topped the Berea several feet lower than the successful producers at 1,537 feet.

Wildcat Developments

Two Gladwin County tests in the vicinity of M. F. Whitehill's No. 1 Kintner, only producer in the Beaverton Township area, were nearing completion in the Dundee formation.

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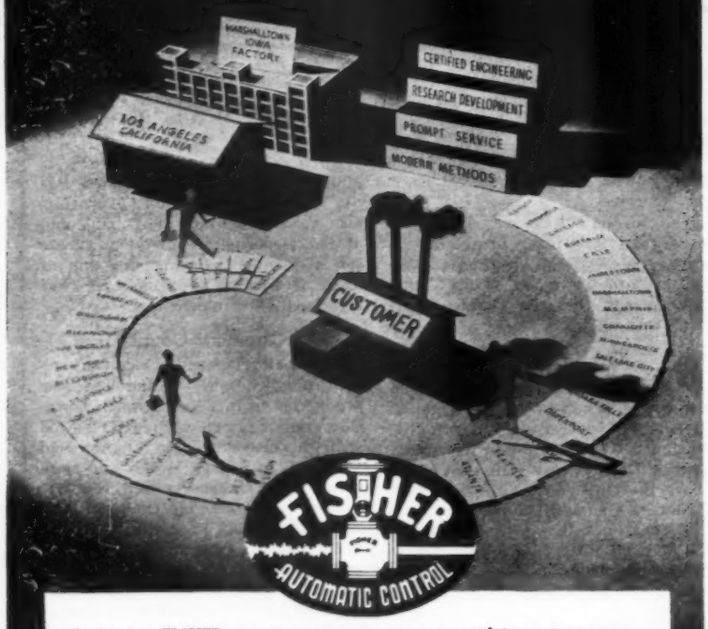

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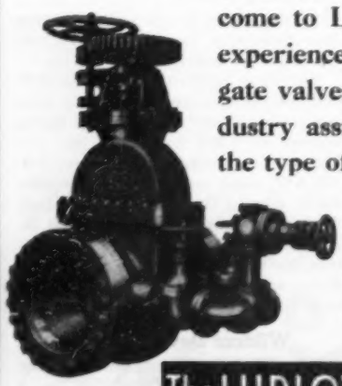

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Sun Oil Co.'s No. 1 Fanslau, C NE NW Section 6-18n-2w, Grout Township, had set 5-inch casing at 3,945 feet and was shut down awaiting orders to drill in. Whitehill's No. 1 Charlotte Dell, SE SW SW Section 2-17n-2w, Beaverton Township, was drilling below 3,500 feet.

D. A. Burris' No. 1 John Becker, C NW SE Section 35-8n-3w, Essex Township, Clinton County, was experiencing trouble above the Dundee after casing with 5-inch at 2,870 feet.

Deep River Oil Co.'s No. 1 Stokaszynski, NE SE SW Section 27-18n-4e, Deep River Township, Arenac County, was drilling in the Traverse formation at more than 2,350 feet.

Dr. Virgil R. D. Kirkham was still testing two shallow wells in Alcona County, northeastern lower Michigan, where shows of gas were encountered. One was the No. 1 J. Jozwiak, NW SE NW Section 25-28n-9e, Alcona Township, 381 feet deep and the other was the No. 1 Carl M. Lund estate, NE NE NE Section 23-27n-9e, Haynes Township, 558 feet deep.

Wallace Markle's No. 1 Frank Opoka, NE NE SE Section 4-15n-11e, Grant Township, Huron County, on the eastern side of the lower peninsula, was reported drilling at more than 2,000 feet.

Two tests in Ionia County were too shallow to give any indications of possible success in this area, although operators are predicting big things in this county in the near future. Gordon Oil Co.'s No. 1 Bank of Muir, NE NE SW Section 30-8n-5w, North Plains Township, was shut down at 755 feet, while J. V. Wicklund's No. 1 E. E. Cutler, NW SW NW Section 10-8n-5w, Ronald Township, was drilling below 1,075 feet.

Two Lapeer County tests were drilling at more than 2,100 feet, namely: the Kinnekenik Land Co.'s No. 1 James and Harry Watson, SE NW SW Section 17-8n-11e, Arcadia Township, NW NW SW Section 13-8n-9e, Oregon Township.

North Central Michigan

Formations were reported running 60 feet high in Joseph Molloy and associates' No. 1 Henry Hillborn, SW NW NW Section 18-22n-12, Richfield Township, Roscommon County, which was drilling at more than 500 feet. Durham & Jones' No. 1 Mary E. Eggleston, NW NW SW Section 9-21n-2w, had a fishing job at 1,465 feet after striking the Coldwater at 1,091 feet.

M. J. Ingold is still testing for a show of oil struck several weeks ago at 3,180 feet in his No. 1 E. Webb, C SW Section 13-22n-9w, Haring Township, Wexford County.

Western Michigan

Two dry holes were added to the record in western Michigan, one in Kent and the other in Newaygo County. After testing for a show of heavily paraffined oil at 2,165-75 feet after plugging back from 2,703 feet, the Lowell Development Co. has plugged and abandoned its No. 1 Anton Kallinger, C N N NE Section 35-7n-9w, Vergennes Township, Kent County. Charles W. Teater also has plugged and abandoned his first test on the H. W. Sawyer lease, NW NE SW Section 5-12n-12w, Brooks Township, Newaygo County, at about 3,000 feet deep, although he may drill another wildcat in this vicinity.

Two tests are being started in Oceana County, one in Elbridge and the other in Ferry Township.

National Minerals Corp. set 6-inch casing through the Marshall at about 1,000 feet in the No. 1 Jasper Lewis, SE SE SW Section 5-10n-11w, Solon Township, Kent County.

Barton Oil Co. will drill a new Kent County test on a 3,000-acre block of leases near Cedar Springs, it was announced by James Barton, of Chicago, head of the firm.

Gas Wells and Tests in West Virginia Area

PITTSBURGH, Pa., Sept. 16.—Gas completions and drilling in West Virginia follow:

On Mill Creek in Curtis district, Roane County, the test of D. W. Law and others on the Jeanette Lyons farm was a gas well in the top of the Salt sand. This has been drilled deeper in that formation and is showing for 5 bbls. a day.

In Cabell County a fair test was completed. It is the No. 1 on the Sarah E. Midkiff farm in McComas district and drilled by W. C. Kingery and others. The Big Lime was at 1,091-1,277 feet; the Big Injun at 1,306-12 feet, with gas showing at 1,310-12 feet. It has a volume of 1,752,000 feet a day.

In Calhoun County Starcher & Richards completed a test on the Albert Kight lease of 28 acres in Sherman district in the Injun sand at 2,095 feet. It is gauging 37,320 feet a day, naturally. In Washington district, Harley Jarvis and others drilled a test on the L. H. Crookshank farm through the Salt sand to a depth of 1,750 feet. It is dry.

In Ritchie County W. H. Mosser and others completed a second test on the B. F. Fleming farm in Murphy district in the Injun sand at 2,048 feet. It is a gas well gauging 379,200 feet a day. In this district the King Knob Oil Co. drilled No. 6 on the Emma V. Weinrick farm through the Injun sand to 2,049 feet. It was dry.

In Grant district, Ritchie County, R. W. Pierson and others completed a test on the Ritchie Lumber Co. lease in the Keener and at a depth of 1,765 feet. It is a gas well with a volume of about 200,000 feet a day. In Clay district Frank Finley drilled a second test on the Minnie Gilpin farm through the Injun sand to 2,013 feet. It is dry.

In Wayne County the Mullens Gas Co. completed a test on the L. Ferguson farm in Lincoln district at a total depth of 2,764 feet. The Big Lime was at 1,139-1,348 feet; the Big Injun sand at 1,348-70 feet; the Berea sand at 1,875-1,905 feet; the Brown shale at 1,995-2,760 feet, with gas showing at 2,015 feet and 2,615 feet. The well gauges 84,000 feet a day.

In Wetzel County C. B. Lewis and others completed a fair test on the D. Dappler heirs farm in Proctor district at a total depth of 2,180 feet. The Pittsburgh Coal was at 1,155 feet; the top of the Maxon sand was at 2,156 feet, with gas showing at 2,169-80 feet. It had a volume of 2,020,000 feet a day, with a rock pressure at the end of 20 hours of 625 pounds.

C. B. Ware has been appointed head of the controller's department of the Standard Oil Company (New Jersey). Mr. Ware, who has been assistant controller, succeeds T. C. McCOBB who was recently elected a director of the company.

U. S. Bureau of Mines Statistics for July, 1935

PRODUCTION OF CRUDE PETROLEUM BY STATES AND PRINCIPAL FIELDS

(Thousands of barrels of 42 gallons)

	July, 1935 Total	July, 1935 Dly. av.	June, 1935 Total	June, 1935 Dly. av.	Jan.-July, 1935	Jan.-July, 1934
Arkansas	936	30.2	935	31.2	6,456	6,585
California:						
Huntington Beach	1,322	42.7	1,342	44 8	8,551	8,841
Kettleman Hills	1,906	61.5	1,851	61.7	13,043	12.128
Long Beach	2,402	77.5	2,232	74.4	14.425	13,527
Santa Fe Springs	1,241	40.0	1,176	39.2	8,119	8.838
Rest of State	10,547	340.2	10,108	336.9	64.406	58,490
Total California	17,418	561.9	16,709	557 0	108,544	101,824
Colorado	124	4 0	115	3.8	897	618
Illinois	377	12.2	358	12.0	2.452	2,713
Indiana	63	2.0	64	2.1	434	496
Kansas	4,865	156.9	4,607	153 6	32,002	27,182
Kentucky	467	15.1	427	14.2	3,091	2,628
Louisiana:						
Gulf Coast	3.596	116.0	3,435	114.5	21,721	11,822
Rest of State	716	23.1	686	22.9	4,876	5,414
Total Louisiana	4,312	139.1	4,121	137.4	26,597	17.236
Michigan	1,257	40.5	1,235	41.2	8,015	6,171
Montana	416	13.5	380	12.7	2.512	1.770
New Mexico	1.804	58 2	1.680	56.0	11.524	9.524
New York	372	12.0	336	11.2	2,430	2,130
Ohio:						
Central and Eastern	264	8.5	256	8.6	1.850	1,885
Northwestern	85	2.8	80	2.6	551	579
Total Ohio	349	11.3	336	11.2	2.401	2,464
Oklahoma:						
Oklahoma City	4.895	157.9	4,805	160.1	33,688	38,990
Seminole	4,306	138.9	4,040	134.7	27,690	22,796
Rest of State	7,234	233.4	6,683	222 8	47,047	46,311
Total Oklahoma	16,435	530.2	15,528	517.6	108,425	108,097
Pennsylvania	1,376	44.4	1,285	42.8	9,321	8.335
Texas:						
Gulf Coast	5,287	170.5	5,116	170.5	36,026	34,533
West Texas	4,634	149.5	4,502	150.1	31,827	28,658
East Texas	15,279	492.9	15,144	504.8	102,892	108,252
Panhandle	1,774	57.2	1,729	57 6	12,640	11,488
Rest of State	6,323	204 0	6,204	206.8	43,056	39,229
Total Texas	33,297	1,074.1	32,695	1.089.8	226,441	222,160
West Virginia	339	10.9	317	10.6	2,314	2,357
Wyoming:						
Salt Creek	522	16.8	499	16.6	3,664	3.786
Rest of State	752	24.3	707	23.6	4,126	3,306
Total Wyoming	1,274	41.1	1,206	40.2	7,790	7,092
Other*	4	.....	4	.....	24	30
Total United States	85,485	2,757.6	82,338	2.744 6	561,670	529,412

*Includes Missouri, Tennessee and Utah.

SUPPLY AND DEMAND OF ALL OILS

(Thousands of barrels of 42 gallons)

	July, 1935	June, 1935	July, 1934	Jan.-July, 1935	Jan.-July, 1934
NEW SUPPLY:					
Domestic production:					
Crude petroleum	85,485	82,338	81,339	561,670	529,412
Daily average	2,758	2,745	2,624	2,649	2,497
Natural gasoline	3,132	3,008	2,971	21,742	20,655
Benzol*	144	137	130	1,012	1,097
Total production	88,761	85,483	84,440	584,424	551,164
Daily average	2,863	2,849	2,724	2,757	2,600
Imports:†					
Crude petroleum:					
Bonded warehouses	479	293	497	3,917	1,990
For domestic use	2,041	2,555	2,504	14,005	18,896
Refined products:					
Bonded warehouses	1,237	1,065	1,152	7,245	6,246
For domestic use	467	923	532	5,605	2,241
Total new supply all oils	92,985	90,319	89,125	615,196	580,537
Daily average	3,000	3,011	2,875	2,902	2,738
Decrease in stocks, all oils	2,041	287	‡3,964	‡1,864	7,808
DEMAND:					
Total demand	95,026	90,606	85,161	613,332	588,345
Daily average	3,065	3,020	2,747	2,893	2,775
Exports:					
Crude petroleum	5,832	5,589	4,128	28,264	22,969
Refined products	7,093	7,362	6,146	40,698	43,263
Domestic demand:					
Motor fuel	41,203	37,884	37,466	240,743	230,079
Kerosene	2,885	2,768	2,816	25,804	24,690
Gas oil and fuel oil	23,454	24,417	21,451	197,209	191,781
Lubricants	1,655	1,558	1,491	11,405	11,094
Wax	70	71	52	530	552
Coke	552	534	481	3,783	4,686
Asphalt	2,034	1,733	1,534	8,455	7,191
Road oil	1,204	873	1,171	3,272	3,481
Still gas (production)	4,814	4,368	4,150	28,837	25,109
Miscellaneous	177	161	181	1,263	1,199
Losses and crude used as fuel	4,053	3,288	4,094	23,069	22,251
Total domestic demand	82,101	77,655	74,887	544,370	522,113
Daily average	2,648	2,589	2,416	2,568	2,463
STOCKS:					
Crude petroleum	329,351	334,757	355,525	329,351	355,525
Natural gasoline	5,816	5,851	4,551	5,816	4,551
Refined products	230,845	227,445	234,314	230,845	234,314
Total, all oils	566,012	568,053	594,390	566,012	594,390
Days' supply	185	188	216	196	214

*From Coal Division. †Imports of crude as reported to Bureau of Mines; imports on refined products from Bureau of Foreign and Domestic Commerce. ‡Increase.

PRODUCTION OF MOTOR FUEL

(Thousands of barrels of 42 gallons)

	July, 1935 Total	July, 1935 Dly. av.	June, 1935 Total	June, 1935 Dly. av.	Jan.-July, 1935	Jan.-July, 1934
Refinery gasoline:						
Straightrun	19,784	638	18,510	617	123,899	120,824
Cracked	18,664	602	17,580	586	116,033	102,110
Natural gasoline:						
Production	3,132	101	3,008	100	21,742	20,655
Deduct losses	203	6	310	10	1,603	2,374
Benzol	144	4	137	5	1,012	1,097
Total motor fuel	41,521	1,339	38,925	1.298	261.083	242.312

COMPARATIVE ANALYSES

(Thousands of barrels of 42 gallons)

	July, 1935 Total	July, 1935 Dly. av.	June, 1935 Total	June, 1935 Dly. av.	Jan.-July, 1935	Jan.-July, 1934
CRUDE PETROLEUM:						
Runs to stills	84,903	2,739	81,724	2,724	545,008	515,729
MOTOR FUEL:						
Production	41,521	1,339	38,925	1,298	261,083	242,312
Imports:						
Bonded warehouses	.....	.....	.. ..	.....	20	.....
For domestic use	.. ..	.....	.....	.....	.....	1
Exports*	3,022	97	3,222	107	15,819	14,836
Stocks:						
Gasoline	50,472	.....	53,141	.....	50,472	52,783
Natural gasoline	5,816	.....	5,851	.....	5,816	4,551
Domestic demand	41,203	1,329	37,884	1,263	240,743	230,079
KEROSENE:						
Production	4,212	136	4,417	147	32,445	30,765
Exports	468	15	634	21	3,870	5,571
Stocks	9,169	.....	8,310	.....	9,169	7,062
Domestic demand	2,885	93	2,768	92	25,804	24,690
GAS OIL AND FUEL OIL:						
Production	27,603	890	27,861	929	189,828	188,200
Transfers†	1,316	42	611	20	7,070	5,006
Imports:						
Bonded warehouses for supplies of vessels	1,236	40	1,065	36	7,223	5,843
For domestic use	444	14	841	28	5,343	1,871
Exports	2,497	81	2,464	82	14,330	16,632
Stocks	108,322	.....	103,674	.....	108,322	115,510
Domestic demand	23,454	757	24,417	814	197,209	191,781
Railroad (Class I)‡	(§)	(§)	3,674	123	¶22,750	21,551
Public utility power plants‖	918	30	852	28	5,872	5,967
Other	22,536	727	19,891	663	168,587	164,263
Bunker oil—foreign	2,590	84	2,406	80	16,905	17,357
Bunker oil—Coastwise	2,247	72	1,919	64	14,965	14,052
LUBRICANTS:						
Production	2,213	71	2,247	75	15,615	15,534
Imports	.....	.....	.....	.....	.....	2
Exports	896	29	731	24	5,024	4,760
Stocks	6.517	.....	6,855	.....	6,517	6,782
Domestic demand	1,655	53	1,558	52	11,405	11,094
WAX (thou. of lbs.):						
Production	32,480	1,048	31,360	1.045	257,600	284,480
Imports:						
Bonded warehouses	.....	.....	.....	.....	224	3,444
For domestic use	1,509	49	2,298	77	15,084	24,148
Exports	16,862	544	18,153	605	123,635	111,461
Stocks	138,941	.....	141,506	.....	138,941	115,137
Domestic demand	19,692	635	19,981	656	148,468	154,591
COKE (short tons):						
Production	139,800	4,510	135,200	4,507	872,200	749,200
Stocks	440,900	.....	424,000	.....	440,900	493,800
ASPHALT (short tons):						
Production	352,000	11,355	350,000	11,667	1,721,800	1,546,400
Imports (natural)	2,000	65	1,800	60	24,200	13,300
Stocks	405,200	.....	435,200	.....	405,200	359,300

*Includes benzol, 30,693 bbls. in July, 1935. †Net transfers in California. ‡I.C.C. §Not available. ¶January-June. ‖U. S. Geological Survey.

RECORD OF WELLS FOR IMPORTANT FIELDS AND DISTRICTS, JULY, 1935*

	Completions: Oil	Completions: Gas	Completions: Dry	Total initial production (bbls.)	Average initial production (bbls.)	Drilling end month
Texas	760	26	231	709,400	930	1,156
East Texas	383	1	14	609,000	1,590	176
Gulf Coast	66	5	21	23,500	360	137
Panhandle	44	4	5	23,000	520	173
West Texas	45	....	11	22,400	500	215
California	78	....	34	83,700	1,070	272
Kettleman Hills	6	....	....	37,300	6,220	24
Long Beach	12	....	2	3,900	330	65
Oklahoma	110	14	60	82,600	750	510
Pontotoc County (Fitts)	21	1	4	20,500	980	62
Seminole district	14	....	3	13,900	990	45
Louisiana	36	11	18	11,200	430	150
Gulf Coast	17	....	8	10,900	640	75
Rest of State	9	11	10	300	30	75
Other states	374	61	82	93,000	250	1,085
Total United States:						
July, 1935	1,348	112	425	979,900	730	3,173
June, 1935	1,385	103	439	1,032,700	750	3,109
July, 1934	1,182	93	392	952,800	810	2,962
Jan.-July, 1935	8,785	812	2,780	7,382,400	840	3,173
Jan.-July, 1934	6,984	569	2,308	6,593,700	940	2,962

*From The Oil and Gas Journal and California office of the American Petroleum Institute.

INDICATED DOMESTIC DEMAND FOR CRUDE PETROLEUM

(Thousands of barrels of 42 gallons)

Domestic petroleum by fields of origin:	July, 1935 Total	July, 1935 Dly. av.	June, 1935 Total	June, 1935 Dly. av.	Jan.-July, 1935	Jan.-July, 1934
Appalachian:						
Pennsylvania Grade	2,095	67.6	1,963	65.5	14,554	14,329
Other (inc. Kentucky)	569	18.3	695	23.1	4,144	3,749
Lima-N. E. Ind.-Mich.	1,222	39.4	1,420	47.7	8,369	6,936
Ill.-S. W. Ind.	601	19.4	383	12.8	2,915	3,042
Mid-Continent:						
N. La. and Ark.	1,413	45.6	1,609	53.6	10,566	13,370
W. Tex.-S. E. N. Mex.	5,421	174.9	6,503	216.8	41,406	41,818
East Texas	17,657	569.6	15,828	527.6	105,250	112,614
Other (Okla., Kans., N. Tex., etc.)	32,948	1,062.8	31,523	1,050.7	205,104	178,279
Gulf Coast	8,240	265 8	7,812	260.4	52,040	43,929
Rocky Mountain	1,908	61.6	1,806	60.2	11,436	8,857
California*	16,747	540.2	16,108	536.9	107,071	97,308
Total demand	88,821	2,865.2	85,660	2,855.3	562,855	524,231
Exports	5,832	188.1	5,589	186.3	28,264	22,969
Domestic demand	82,989	2,677.1	80,071	2,669.0	534,591	501,262
Foreign petroleum	3,299	106.4	2,776	92.5	18,300	20,251
Total domestic demand	86,288	2,783.5	82,847	2,761.5	552,891	521,513

*Demand less net transfers from crude.

STOCKS OF CRUDE PETROLEUM BY DISTRICTS AND GRADES

(Thousands of barrels of 42 gallons)

	July 31, 1935	June 30, 1935	July 31, 1934
At refineries by location:			
East Coast: Domestic	11,505	11,512	10,744
Foreign	2,427	2,682	2,780
Appalachian	1,633	1,594	1,464
Indiana, Illinois, Kentucky, Michigan	4,151	4,326	4,511
Oklahoma, Kansas and Missouri	5,106	5,426	5,786
Texas: Inland	1,493	1,534	1,909
Gulf Coast: Domestic	10,144	10,673	10,352
Foreign	253	548	305
Louisiana Gulf Coast: Domestic	4,427	4,334	3,559
Foreign	733	961	604
Arkansas and Inland Louisiana	1,129	1,082	616
Rocky Mountain	13,075	12,911	13,337
California	7,007	6,939	8,413
Total	63,088	64,523	64,372
At refineries by origin:			
Pennsylvania Grade	1,444	1,416	1,345
Other Appalachian (inc. Kentucky)	573	527	585
Lima-N. E. Indiana-Michigan	551	457	471
Illinois-S. W. Indiana	131	193	111
North Louisiana and Arkansas	2,869	2,669	2,152
West Texas and S. E. New Mexico	3,807	3,508	4,029
East Texas	6,208	7,089	7,443
Oklahoma, Kansas, North Texas, etc.	15,090	16,050	16,147
Gulf Coast	8,938	8,636	6,681
Rocky Mountain	13,057	12,897	13,305
California	7,007	6,939	8,413
Foreign	3,413	4,192	3,690
Total	63,088	64,523	64,372
Pipe-line and tank-farm:			
Pennsylvania Grade	3,834	3,747	3,691
Other Appalachian (inc. Kentucky)	511	512	715
Lima-N. E. Indiana-Michigan	933	897	1,109
Illinois-S. W. Indiana	11,320	11,414	11,228
North Louisiana and Arkansas	7,938	7,904	8,409
West Texas and S. E. New Mexico	27,778	27,081	24,946
East Texas	22,650	24,082	24,156
Oklahoma, Kansas, North Texas, etc.	128,188	130,772	145,816
Gulf Coast	15,492	15,136	11,871
Rocky Mountain	14,978	15,185	15,028
California	23,713	24,444	25,834
Total	257,335	261,174	282,813
Lease (producers') stocks	8,928	9,060	8,340
Total refinable crude in the United States	329,351	334,757	355,525

STOCKS OF CRUDE PETROLEUM BY STATES

(Thousands of barrels of 42 gallons)

	Location* July 31, 1935: At refineries	At tank-farm and in pipe-line	On leases	Total	Total June 30, 1935	Origin† July 31, 1935	Origin† June 30, 1935
Arkansas	771	3,269	265	4,305	4,187	6,864	6,542
California	7,007	23,713	1,942	32,662	33,282	32,662	33,282
Colorado	309	100	25	434	420	531	521
Georgia‡	643	.....	.....	643	668	.....	.....
Illinois	1,382	10,737	95	12,214	12,451	11,535	11,700
Indiana	1,284	1,834	8	3,126	3,228	31	31
Kansas	2,037	10,456	440	12,933	13,185	5,386	5,692
Kentucky‡	484	380	40	904	884	914	890
Louisiana†	5,518	6,079	475	12,072	11,948	9,779	9,611
Maryland	1,240	.....	.....	1,240	1,236	.....	.....
Massachusetts	814	.....	.....	814	1,060	.....	.....
Michigan	142	513	80	735	732	1,024	922
Missouri**	174	3,391	.....	3,565	3,491	.....	.....
Montana	229	1,664	100	1,393	1,471	1,392	1,470
New Jersey	6,085	373	.....	6,458	6,373	.....	.....
New Mexico	12	436	280	728	745	5,851	5,313
New York	1,327	171	18	1,516	1,480	515	496
Ohio	1,046	6,739	70	7,855	7,765	1,042	1,012
Oklahoma	2,895	72,516	1,750	77,161	77,841	101,447	102,952
Pennsylvania	5,182	1,988	100	7,271	7,487	2,861	2,829
Texas	11,890	97,921	2,750	112,561	116,204	115,628	118,908
Utah	210	.....	.....	210	214	.....	.....
West Virginia	51	1,882	140	2,073	1,980	1,937	1,868
Wyoming††	12,315	13,773	350	26,438	26,424	26,539	26,526
Foreign	.....	.....	.....	.....	.....	3,413	4,192
Total U. S.	63,088	257,335	8,928	329,351	334,757	329,351	334,757

*Segregated by states of location regardless of origin. †Segregated by states of production (origin) regardless of location. ‡Includes South Carolina and Virginia. §Includes Tennessee. ¶Includes Alabama. ‖Includes Rhode Island. **Includes Iowa. ††Includes Nebraska and South Dakota.

MOVEMENT OF CRUDE OIL AND REFINED PRODUCTS TO EASTERN PORTS IN THE UNITED STATES

(Thousands of barrels of 42 gallons)

	July, 1935	June, 1935	July, 1934	Jan.-July, 1935	Jan.-July, 1934
California to East Coast:					
Gasoline	695	769	808	4,592	4,536
Kerosene	79	5	85	902	926
Gas oil and fuel oil	.....	.....	816	564	10,145
Lubricants	8	12	5	51	38
Miscellaneous	69	74	2	372	121
Total	851	861	1,716	6,482	15,766
Gulf to East Coast:*					
Crude	12,125	11,586	(†)	83,921	(†)
Gasoline‡	5,715	6,854	(†)	42,956	(†)
Kerosene	501	605	(†)	7,120	(†)
Gas oil and fuel oil	2,865	2,849	(†)	29,494	(†)
Lubricants	117	309	(†)	1,197	(†)
Miscellaneous	16	7	(†)	58	(†)
Total	21,139	22,210	(†)	164,736	(†)
Foreign crude to East Coast:					
Colombia	.....	.....	108	.....	2,921
Ecuador	.....	.....	.....	.....	79
Mexico	325	329	279	1,394	2,932
Trinidad	.....	.....	22	59	22
Venezuela	1,872	2,091	2,174	12,444	13,458
Total	2,197	2,420	2,575	13,897	19,412
Foreign crude to Gulf Coast:					
Colombia	322	226	.....	2,301	.....
Mexico	.....	66	208	498	1,005
Venezuela	.....	136	218	1,226	468
Total	322	428	426	4,025	1,473

*From Division of Investigations, Department of the Interior. †Not available. ‡Includes natural gasoline.

RUNS TO STILLS AND OUTPUT OF REFINERIES, JULY, 1935

(Thousands of barrels of 42 gallons)

INPUT—	Crude runs: Domestic	Crude runs: Foreign	Crude runs: Total	Unfinished rerun (net): Crude gasoline	Unfinished rerun (net): Other	Natural gasoline
East Coast	12,280	2,444	14,724	—108	—343	38
Appalachian	3,337	.....	3,337	22	—14	18
Ind., Ill., Ky., etc.	11,792	.....	11,792	240	—233	216
Okla., Kans., Mo.	9,807	.....	9,807	—34	146	468
Texas Inland	5,420	.....	5,420	67	—163	268
Texas Gulf	17,384	616	18,000	89	—512	111
Louisiana Gulf	3,369	220	3,589	32	—120	35
Ark. and La. Inland	1,402	.....	1,402	3	—19	35
Rocky Mountain	1,754	.....	1,754	—15	39	47
California	15,078	.....	15,078	96	—188	*983
Total	81,623	3,280	84,903	392	—1,407	2,219

OUTPUT—	Gasoline	Kerosene	Gas oil and distillate fuels	Residual fuel oils	Lubricants	Wax (thousands of pounds)
East Coast	6,047	733	1,696	3,202	618	15,400
Appalachian	1,649	246	165	393	423	6,160
Ind., Ill., Ky., etc.	7,043	384	1,043	1,278	175	2,800
Okla., Kans., Mo.	5,578	689	829	1,876	279	2,240
Texas Inland	3,005	303	316	1,440	21	280
Texas Gulf	8,279	1,007	1,985	4,298	447	3,920
Louisiana Gulf	1,389	383	577	662	48	560
Ark. and La. Inland	615	78	98	387	21	.....
Rocky Mountain	928	49	126	306	24	1,120
California	6,134	340	1,874	6,368	157	.....
Total	40,667	4,212	8,709	20,210	2,213	32,480

OUTPUT—	Coke (tons)	Asphalt (tons)	Road oil	Still gas	Miscellaneous	Shortage
East Coast	14,200	150,600	70	900	52	39
Appalachian	2,400	12,000	10	234	22	121
Ind., Ill., Ky., etc.	63,000	60,500	406	1,003	13	308
Okla., Kans., Mo.	19,600	2,700	185	499	23	308
Texas Inland	4,600	9,100	.....	147	6	280
Texas Gulf	18,200	19,100	12	1,305	19	126
Louisiana Gulf	8,400	24,200	11	202	2	85
Ark. and La. Inland	200	11,600	57	38	6	56
Rocky Mountain	8,800	9,500	138	109	4	41
California	400	52,700	295	377	26	106
Total	139,800	352,000	1,184	4,814	173	1,174

*Includes 61,000 bbls. run through pipe lines.

CRACKED OPERATIONS

Fresh cracking stock charged to stills; crude, 5,908,000 bbls.; other oils,	38,614,000 bbls.
Gasoline produced by cracking	18,664,000 bbls.
Fuel oil produced by cracking	16,601,000 bbls.

STOCKS HELD BY REFINING COMPANIES, JULY 31, 1935

(Thousands of barrels of 42 gallons)

	Finished gasoline: At refineries	Finished gasoline: Bulk and pipe lines	Unfinished gasoline	Total gasoline	Kerosene	Gas oil and distillate fuel oils
East Coast	5,348	10,285	937	16,570	2,477	5,471
Appalachian	1,295	1,112	323	2,730	231	198
Ind., Ill., Ky., etc.	5,503	3,933	696	10,132	713	3,014
Okla., Kans., Mo.	3,339	1,497	648	5,484	393	1,008
Texas Inland	1,406	92	241	1,739	162	221
Texas Gulf	5,209	304	1,758	7,271	2,724	4,311
Louisiana Gulf	643	510	240	1,393	824	2,232
Ark. and La. Inland	264	102	34	340	32	56
Rocky Mountain	843	.....	120	963	137	145
California	6,760	2,087	977	9,824	1,476	6,259
Total	30,550	19,922	5,974	56,446	9,169	22,915

	Residual fuel oil	Lubricants	Wax (thous. of pounds): Crude scale	Wax (thous. of pounds): Refined	Wax (thous. of pounds): Total
East Coast	6,844	2,044	25,387	25,843	51,230
Appalachian	405	795	16,451	3,039	19,490
Ind., Ill., Ky., etc.	2,914	456	17,291	1,270	18,561
Okla., Kans., Mo.	3,043	467	3,315	692	4,007
Texas Inland	1,921	93	.....	289	289
Texas Gulf	7,954	1,532	937	23,332	24,269
Louisiana Gulf	2,793	86	1,019	1,824	2,843
Ark. and La. Inland	546	28	.....	.....	.....
Rocky Mountain	489	93	17,313	939	18,252
California	58,498	923	.....	.....	.....
Total	85,407	6,517	81,713	57,228	138,941

	Coke (tons)	Asphalt (tons)	Road oil	Miscellaneous	Other unfinished	Natural gasoline
East Coast	31,400	128,600	31	69	8,285	285
Appalachian	9,700	12,100	12	35	2,053	3
Ind., Ill., Ky., etc.	65,400	91,300	230	19	5,756	40
Okla., Kans., Mo.	41,500	10,000	245	25	5,782	60
Texas Inland	6,200	.....	54	5	971	5
Texas Gulf	92,500	10,500	14	23	11,944	152
Louisiana Gulf	33,100	34,400	12	3	1,641	5
Ark. and La. Inland	200	41,800	36	1	474	5
Rocky Mountain	78,100	9,100	371	10	1,740	69
California	82,800	67,400	262	52	5,306	2,165
Total	440,900	405,200	1,268	243	43,952	2,789

Grand total stocks refined products, 230,845,000 bbls.

GASOLINE PRODUCTION BY THE VARIOUS METHODS, JULY, 1935

(Thousands of barrels of 42 gallons)

	Straightrun: Total	Straightrun: Per cent (*)	Straightrun: Per cent (†)	Cracked: Total	Cracked: Per cent (*)	Cracked: Per cent (†)	Nat. gasoline: Total	Nat. gasoline: Per cent (†)	Gasoline: Total	Gasoline: Per cent (*)
East Coast	2,666	18.1	44.1	2,343	22.7	55.3	38	0.6	6,047	40.8
Appalachian	840	25.2	50.9	791	23.7	48.0	18	1.1	1,649	48.9
Ind., Ill., etc.	2,819	23.9	40.0	4,008	34.0	56.9	216	3.1	7,043	57.9
Okla., Kans., Mo.	2,774	28.3	49.7	2,336	23.8	41.9	468	8.4	5,578	52.1
Texas Inland	1,862	34.4	62.0	875	16.1	29.1	268	8.9	3,005	50.5
Texas Gulf	3,802	21.1	45.9	4,366	24.3	52.7	111	1.4	8,279	45.4
Louisiana	736	20.5	53.0	618	17.3	44.5	35	2.5	1,389	37.7
Ark. & La. Inland	316	22.6	51.4	264	18.8	42.9	35	5.7	615	41.4
Rocky Mountain	450	25.6	48.5	431	24.6	46.4	47	5.1	928	50.2
California	3,519	23.4	57.4	1,632	10.8	26.6	983	16.0	6,134	34.2
Total	19,784	23.3	48.6	18,664	22.0	45.9	2,219	5.5	40,667	45.3

*Per cent of crude run. †Per cent of total gasoline output.

SHIPMENTS OF MOTOR FUEL BY PIPE LINES

(Thousands of barrels of 42 gallons)

	July, 1935	June, 1935	July, 1934	Jan.-July, 1935	Jan.-July, 1934
Motor fuel turned into lines	4,521	3,992	4,293	28,041	25,264
Motor fuel delivered from lines	4,618	4,366	4,191	27,956	25,242
Shortage	23	16	14	157	57
Stocks in lines and working tanks end of month	1,971	2,991	1,280	1,971	1,280

WILDCAT OPERATIONS

OKLAHOMA WILDCATS

Week Ending September 14

NORTHERN OKLAHOMA

Alfalfa County

Tex-O-Kan Oil Co.'s No. 1 Acre, C SW NE Sec. 14-24-11w.
T.D. 6,460 ft.; plugged to 6,296 ft.; fshg. for 900 ft. of drill pipe; cemented off bailer; set whipstock 6,250 ft.

Beckham County

Star Oil Co.'s No. 1 Blair, C NW SE Sec. 32-9-26w.
Rig and tools.

Blaine County

Earl Ingraham et al's No. 1 Masters, SW NW NW Sec. 27-16-11w.
S.D. 1,240 ft.

Caddo County

Denver Prod. & Ref. Co.'s No. 1 Sah-Can, C SE SE Sec. 33-10-10w.
T.D. 8,330 ft.; salt wtr.; P.B. to 8,200 ft. and csg. collapsed; milled through csg. and cmtd. with 3,000 sacks; milling.
H. W. Lee et al's No. 1 Horton, NE cor. Sec. 9-6-13w.
T.D. 600 ft.; S.D. for water.
H. W. Lee et al's No. 1 Stacey Ferrell, SW NE NE Sec. 3-6-13w.
T.D. 2,506 ft.; contract comp.; S.D.
F. A. Turner et al's No. 1 Spain, NE NE SW Sec. 1-5-11w.
Drlg. 3,118 ft.

Cleveland County

Arab Pet. Co.'s No. 1 McKiddy, SE SE NW Sec. 16-7-1.
Drlg. 6,545 ft.
Hall-Briscoe, Inc.'s No. 1 Fant, SW SW NE Sec. 27-10-2w.
Drlg. 6,840 ft.

Coal County

Carter Oil Co. et al's No. 1 Thompson, C S½ NE NW Sec. 34-2-9.
Woodford 5,630 ft.; drlg. 5,678 ft.

Comanche County

Oscar Jones' No. 1-A Scheets, NE SW Sec. 26-3-10w.
Rigged up.

Garvin County

Charles Carter and W. S. Key, Inc.'s No. 1 Wood, NW SW SE Sec. 5-4-3e.
S.D. 2,405 ft.

Grant County

Helmerich & Payne's No. 1 Crouse, C NE SW Sec. 29-25-8w.
T.D. 6,502 ft.; contract depth; S.D.
Shell Pet. Corp.'s No. 1 Foster, NW SE Sec. 30-27-8w.
Drlg. 4,035 ft.
Wentz Oil Corp. et al's No. 1 Wirtz (Community), SE SE NW Sec. 22-28-4w.
Mississippi lime 4,766 ft.; T.D. 4,894 ft.
Yingling et al's No. 1 Allen, SW SE Sec. 36-26-4w.
Rig on ground.

Greer County

H. N. Payne et al's No. 1 Tressell, NW cor. Sec. 1-7-22w.
T.D. 1,785 ft.; U.R. 8-in. csg.; to deepen; cleaning out.

Hughes County

Caprock Oil Co.'s No. 1 Parks, SW SW SE Sec. 34-7-8.
S.D. 300 ft.
Freeman et al's No. 1 Kite, NW NW NE Sec. 8-6-10.
Top sand 700 ft.; show oil; S.D.
Karl Sadler's No. 1 Scott, NW cor. Sec. 23-7-9.
S.D. 878 ft.
Sivalls et al's No. 1 Montgomery, NW SW NW Sec. 7-9-9.
Rig.
Texas Co.'s No. 1 Keaton, NW SW Sec. 4-8-10.
Set 8-in. csg. 3,956 ft.; shot 15 qts. 3,985-4,038 ft.; acidized; 650 ft. oil and 1,250 ft. water in hole.

Kay County

J. T. Lindsay's No. 1 Waggoner, NW NW NE Sec. 2-27-1.
Wilcox 4,230-35 ft.; hole full water; abd.
Lewis Prod. Co.'s No. 1 Hollenbeck, SE NE SE Sec. 18-27-2.
Drlg. 1,650 ft.
Robinson Drlg. Co.'s No. 1 Hermes, SW SW NW Sec. 6-26-4.
T.D. 2,645 ft.; lowered 8-in. csg.

Kiowa County

Rajah Oil Co.'s No. 3 Stone, C SE NE Sec. 34-7-17w.
Sulphur wtr. 1,390-1,430 ft.; T.D. 1,476 ft.; machine moved out.

Leflore County

McCraw et al's No. 1 Tidwell, C NW SE Sec. 17-8-22.
Drlg. at 300 ft.

Lincoln County

W. N. Anthony's No. 1 Fruin-Eckman, SE SE SW Sec. 4-16-1e.
Rigging up standard tools; T.D. 5,181 ft.
Chester L. Carlock's No. 1 Young, C N½ NW NW Sec. 23-15-5.
Spudded and S.D.
Chas. Ralph's No. 1 Young, C N½ NW NW Sec. 23-15-5.
Spudded and S.D.
Stanolind O. & G. Co. and Amerada Pet. Corp.'s No. 1 Connelly, SE NE SE Sec. 23-14-2.
First Wilcox 5,194 ft.; second Wilcox 5,263 ft.; T.D. 5,269 ft.; shut down for orders.
Texas Co.'s No. 1 Niccum, SE SW NW Sec. 28-14-5.
T.D. 4,863 ft. in Wilcox; salt wtr.; P.B. to 3,534 ft.

Logan County

Anderson-Kerr et al's No. 1 Goodrum, NE cor. Sec. 15-15-3w.
Hunton 5,940 ft.; Sylvan 5,965 ft.; drlg. 6,080 ft.
Anderson-Prichard and Frank Buttram's No. 1 Cavalt, NW SW SE Sec. 22-16-3w.
Checkerboard lime 4,950 ft.; drlg. 5,180 ft.
Sinclair Prairie and Slick-Urschel's No. 1 Koatsch, SW cor. Sec. 23-15-3w.
Second Wilcox 6,322-43 ft.; wtr.; P.B. to 6,204 ft. in Simpson; making 50 bbls. oil per day; S.I. for tanks.
Stanolind O. & G. Co., Amerada Pet. Corp. and Eason O. & R. Co.'s No. 1 Gragg, SW SW NE Sec. 20-18-4w.
T.D. 5,890 ft.; 7-in. csg. stuck; fshg.
Texas Co. et al's No. 1 Wood, SW SW NE Sec. 34-15-4w.
T.D. 6,220 ft.; cemented off 3 stands of drill pipe; top of cement 5,997 ft.

Major County

Indian Territory Illuminating Oil Co. and Continental Oil Co.'s No. 1 Fairview, 700 ft. from S and 670 ft. from W lines of SE¼ Sec. 32-22-14w.
Top sand 6,857 ft.; show gas at 6,882½ ft.; T.D. 7,451 ft.; P.B. to 6,900 ft. to test sand 6,857-6,917 ft.; dry and abd.

Noble County

Atlantic Oil Prod. Co. et al's No. 1 Strom, 640 ft. S and W NE cor. SE¼ Sec. 8-20-1w.
First Wilcox 5,245-65 ft.; no show; second Wilcox 5,290-97 ft.; salty; plugged back; will perforate pipe at 3,479-3,557 ft.

Okfuskee County

Sunray Oil Co.'s No. 1 Culla, NE SW NE Sec. 13-12-8.
Drlg. 2,350 ft.

Oklahoma County

Sinclair Prairie O. & G. Co.'s No. 1 Corbett, NE NW NE Sec. 17-13-3w.
Wilcox sand 6,645-6,706 ft.; plugged back to 6,673 ft.; flowed 90 bbls. oil, 2,000 bbls. water and 10,000,000 ft. of gas; plugging back.

Osage County

J. A. Freeberg et al's No. 1, NE cor. SE Sec. 1-25-6.
Sand 2,030-80 ft.; running 8-in. csg.

Pawnee County

Stanolind O. & G. Co.'s No. 1 Shunatana, NE SW SE Sec. 32-22-3.
Hole full water from second Wilcox, 4,279-83 ft.; abandoned.

Pontotoc County

E. M. Blanchard's No. 1 Crabtree, NE SE NE Sec. 27-3-6.
S.D. 2,920 ft.
Philip Boyle's No. 1 McCracken, NE NW NW Sec. 31-5-4.
T.D. 2,173 ft.; plugged back to 2,167 ft.; pumped salt wtr. with show of oil.
Charles E. Carter's No. 1 Wood, NW SW SE Sec. 5-4-3.
S.D. 2,405 ft.
Continental Oil Co.'s No. 1 McCarty, C SE NW Sec. 12-1-7e.
Sylvan 3,793 ft.; Viola 3,920 ft.; ran csg. to 3,920 ft.
Crabb-Craw Oil Co.'s No. 1-A Breco, SE NE SW Sec. 2-4-6.
Sand 1,106-18 ft.; pumped 10 bbls. in 24 hrs.; S.D.
Franks Bros.' No. 1 Abbott, SW NW NE Sec. 34-3-6.
Rig.
Gillette & Kroeger's No. 1 Duver, NW NW SE Sec. 36-1n-6e.
T.D. 1,325 ft.; S.D.
McBride, Inc., et al's No. 1 Copeland, SE NW Sec. 31-4-5.
Drlg. 1,175 ft.
Southern Oil Co.'s No. 1 Perry, SW SW NW Sec. 11-4-6.
Rig on ground.

Pottawatomie County

Ross Oil Co. et al's No. 1 Sparkman, SE NE Sec. 33-3n-4e.
Rig.

Seminole County

L. Cooper's No. 1 Chandler, NE SE SW Sec. 4-5-6.
S.D. 1,780 ft.
Ray Dorris and J. T. Hall's No. 1 Dorris, SE SE SW Sec. 31-10-7.
Sand 530-60 ft.; H.F.W.; S.D. 608 ft.
Scott & Smith's No. 1 Abb, SE NW SE Sec. 4-6-6.
Drlg. 2,913 ft.
Van Deventer et al's No. 1-A Bender, NE NE SW Sec. 3-8-8.
Sand (corrected) 3,170-3,200 ft.; T.D.; swbd. 60 bbls. oil in 2 hrs.; shot with 3 qts.; set 6-in. csg. 3,170 ft.
Verser & Clay et al's No. 1 Thomas, NE SE NW Sec. 1-6-6.
S.D. at 3,030 ft.
Tom Phillips et al's No. 1 Abbott, NE cor. Sec. 33-8-7.

Washita County

L. P. McWhirter's No. 1 fee, SW cor. Sec. 34-8n-19w.
T.D. 1,015 ft.; waiting for csg.

SOUTHERN OKLAHOMA

Atoka County

L. O. Garner et al's No. 1 Garner, C NE NW NE Sec. 27-1n-15 (800-ft. test).
Drlg. 490 ft.
Keaton et al's No. 1-A Roland, NE cor. NW NE NE Sec. 16-3s-10e.
T.D. 850 ft. (corrected); lime at 800-47 ft.; will treat.
Malarnee et al's No. 2 D.O.K. land, C SE SE Sec. 35-2s-13.
T.D. (corrected) 3,136 ft.; cleaning out.
Mid-Continent Pet. Corp. et al's No. 1 Fulton, SW cor. Sec. 19-1s-12e.
Cored 2,927-39 ft.; shale and sandy streaks; T.D.
R. H. Pierce et al's No. 1 Aetna Life Ins. Co., NW SW NE Sec. 10-1n-13e.
S.D. 1,305 ft.
Vierson et al's No. 1 Williams, NE SW NW Sec. 34-2s-10.
T.D. 2,236 ft.; cleaning out 4 ft. off bottom.

Bryan County

Welch Oil Corp.'s No. 1 Collins, NE NE Sec. 19-8s-8e.
S.D. 825 ft.
J. D. Parks' No. 1 Coats, SE NE SW Sec. 1-5s-8e.
T.D. 325 ft.; S.D.
H. B. Smith et al's No. 1 Henry, C NW NE Sec. 10-8s-7e.
Rig (4,500-ft. test).
Trio Oil Co.'s No. 1 Gilbert, SW NE SW Sec. 25-8s-7.
Sand 891-902 ft.; shale at 905 ft.; T.D.; flowing water.

Carter County

Waco Turner's No. 1 Munson, NE NW NE Sec. 35-5s-2w.
Cored salty sand, showed water, 5,002-26 ft.; S.D. for orders.
Carter Oil Co.'s No. 1 Carter-Williams, SW NE SW Sec. 27-2s-3w.
Drlg. 7,488 ft. in shale.

Choctaw County

Rhodes et al's No. 1 Possumik Savings Bank, SW NW Sec. 1-5s-17.
Fishing tools at 605 ft.

Jackson County

Associated Oil Co.'s No. 1 Harrell, NE NE SE Sec. 13-1s-21w.
T.D. 1,175 ft.; U.R. 8¼-in. csg. at 1,148 ft.
Dengail Oil & Gas Co.'s No. 1 Robinson, SE SE NE Sec. 22-1s-22w.
Drlg. 5,070 ft. in shale; dry sand 4,997-5,007 ft.
Gypsy Oil Co.'s No. 1 Boucher, NW SW SW Sec. 32-1-19w.
Drlg. 2,345 ft.
Gypsy Oil Co.'s No. 1 Stokes, SE NW SW Sec. 11-1-20w.
Lime 1,709-11 ft.; T.D. 1,722 ft.; S.D.
Marshall & Burnham's No. 1 Hess, NE SW NE Sec. 27-1s-20w.
Drlg. 1,742 ft.
Palo Duro Oil Co.'s No. 1 Ealum, SW SW SW Sec. 16-2-21w.
S.D. 2,505 ft.
Triangle Oil Co.'s No. 1 Fox, E½ W½ NW Sec. 11-3n-20w.
S.D. 632 ft.

Jefferson County

Gypsy Oil Co.'s No. 1 James, SW SE SE Sec. 30-2s-6w.
S.D. 2,102 ft.
G. W. Howell et al's No. 1 Currey, SE SE SW Sec. 36-4s-9w.
Dry and abd. 2,501 ft.

Johnston County

W. A. Delaney et al's No. 1 Diamond, NW NE SE Sec. 5-1s-8.
Drlg. 2,100 ft.
Equitable O. & G. Co.'s No. 1 Bellsey, NE SW Sec. 12-2s-4e.
Location.

Love County

Sinclair Prairie Oil Co.'s No. 1 Stockton, SE SE SW Sec. 26-6s-2w (5,000-ft. test).
Drlg. 4,482 ft.

Marshall County

Jess Cook et al's No. 1 May, NE NW Sec. 12-8s-5.
Drlg. 75 ft.
Norman Smith's No. 1 Chestnut, NE cor. Sec. 23-8s-5e.
S.D. 275 ft.; machine moved out.
Paul Robb's No. 1 Vittetoe, C NE SE Sec. 11-5s-4e.
Top Sylvan shale 5,405 ft.; T.D. 5,461 ft.; S.D.

Pushmataha County

C. W. Whitehead et al's No. 1 Misser, SE SW SW Sec. 35-3s-18e.
Drlg. 3,418 ft.

Stephens County

Franklin & Duncan's No. 1 Woolsey, NW NW SE Sec. 10-3s-6w (old well deepening).
Drlg. 875 ft.
J. W. Madison's No. 1 Tussey, SW SE SW Sec. 24-1n-4w.
Dry and abd. 3,220 ft.; (shut down since Dec., 1933).
Prince Bros.' No. 1-A Williams, C SW SE Sec. 19-2-8w.
R.U. and S.D.

Tillman County

J. B. Connelly's No. 1 McCord, NW SE NE Sec. 15-1-17w.
S.D. for casing at 542 ft.
Loper et al's No. 1 Conrad, NE cor. Sec. 35-1s-19w.
Drlg. in brown shale 1,660 ft.

KANSAS WILDCATS

Week Ending September 14

(Descriptions are East unless marked otherwise)

Barber County

L. H. Wentz' No. 1 Skinner, SE NW NW NE Sec. 29-31-14w.
Chat 4,538-45 ft.; T.D. 4,556 ft.; swabbed 20 bbls. 24 hrs.; 1,500,000 ft. of gas.

Barton County

Continental Oil Co.'s No. 1 Klug, C N half N half NE Sec. 18-17-12w.
Drlg. 3,105 ft.
Lario O. & G. Co. et al's No. 1 Peter, NW cor. Sec. 24-20-11w.
Drlg. 2,805 ft.
C. L. Price et al's No. 1 Ehrlich, NW NW SE Sec. 10-16-13w.
Oswald 3,098 ft.; S.D. 3,140 ft.
Suppes & Witt's No. 1 Hayes, NW cor. Sec. 7-16-15w.
U.R. 6-in. to 3,150 ft.; cleaning out.
Torry & Feaster et al's No. 1 Kimpler, SE NE NE Sec. 31-18-11w.
S.D. 1,800 ft.
Torry & Feaster's No. 1 Feist, NE NE SE Sec. 29-18-11w.
Drlg. 2,575 ft.
W. E. Witt's No. 1 Murry, NW NW SW Sec. 14-17-14w.
Spudded and S.D.

Butler County

Mohawk Oil Co.'s No. 1 Overstreet, NW cor. (Lot 21), Sec. 19-26-3.
Drlg. 835 ft.
Western Kansas O. & R. Co.'s No. 1 King & Marshall, NW NW SW Sec. 11-28-6.
Top Mississippi lime 2,732 ft.; at 2,804-05 ft. est 10 bbls. oil per day; cleaning out at 2,827 ft.

Cowley County

Baden, Johnson, Roth & Faurot's No. 1 David, NE SW Sec. 35-30-4.
Sand 2,953-75 ft.; swabbed 430 bbls. 48 hrs.
Murfin & Stewart's No. 1 Newton, SE SE SE Sec. 21-30-2.
Rig.
Wakefield et al's No. 1 Auman, SE SE NE Sec. 32-32-3.
Drlg. 3,335 ft.
Winkler, Koch et al's No. 1-B Harlan, C NW NE Sec. 13-31-7.
S.D. 150 ft.

Dickinson County

Dutch Oil Co.'s No. 1 Phillips, C NE NW Sec. 15-15-1e.
Viola 3,085 ft.; T.D. 3,282 ft.

Ellis County

Ellis County Oil Co.'s No. 1 Freis, near C SE SE NW Sec. 10-12-20w.
Moving in material.
Helmerich & Payne et al's No. 1 Kuhn, C NE quarter Sec. 16-14-20w.
Show of oil 3,832-36 ft.; hole full water 3,875 ft.; drlg. 3,876 ft.
Palmer and Storm King Oil Co.'s No. 1 Bowlby, NE NW NW Sec. 13-11-16w.
Anhydrite 1,076 ft.; drlg. 2,095 ft.

P. G. Reynolds et al's No. 1 Walter, SE NE SW Sec. 2-12-18w.
Moving in material.

L. Roark et al's No. 1 Bemis, SE cor. Sec. 16-11-17w.
Drlg. 2,596 ft.

Ellsworth County

Franco Central et al's No. 1 Frevert, SW cor. Sec. 8-17-10w.
Siliceous lime 3,320 ft.; T.D. 3,355 ft.; 600 ft. fluid in hole.

Keith et al's No. 1 Schepman, SW SW NW Sec. 22-17-10w.
Drlg. 1,575 ft.

Lario O. & G. Co.'s No. 1 State, SW SW SW Sec. 29-15s-8w.
T.D. 3,937 ft.; P.B. 2,525 ft.; S.D.

Graham County

Cusco Oil Co.'s No. 1 Kaufman, C NE NE Sec. 18-6-24w.
Rigging up.

Helmerich & Payne et al's No. 1 Stites, C SW SW Sec. 3-10-22w.
Top Siliceous 4,196 ft.; T.D. 4,220 ft.; will plug back.

Vickers Pet. Co. & Phillips Pet. Co.'s No. 1 Hutton, 430 ft. W and 330 ft. S of NE SE Sec. 29-8-22w.
Spudded and S.D.

Harvey County

Goering Bros.' No. 1 Brainard, NE SW Sec. 3-22-2w.
U.R. 8-in. csg. to 3,198 ft.

Hartman & Blair et al's No. 1 Redinger, NW cor. Sec. 15-24-3w.
Viola 2,937 ft.; Wilcox 3,969 ft.; T.D. 4,015 ft.; fishing.

Kingman County

Derby et al's No. 1 Bartholomew, SW NW NW Sec. 8-27-4w.
Wilcox 4,035 ft.; drlg. 4,105 ft.

D. R. Lauck's No. 1 Skilling, SE NE SW Sec. 33-27-8w.
Rig.

Logan County

Alma Pet. Co. and McNeely's No. 1 Watchorn, C SW NE Sec. 13-15-33w.
Drlg. 2,870 ft.

McPherson County

Carey & Miller's No. 1 Husband, SE SE NW Sec. 6-19-3w.
Fishing 3,055 ft.

Hollow, Toews & Hinkle's No. 1 Aschman, NW NW SE Sec. 8-21-4w.
Base of Miss. lime 3,632 ft.; drlg. 3,-870 ft.

L. H. Wentz' No. 1 Holdeman, NW SE Sec. 16-18-1w.
Drlg. 2,240 ft.

Pratt County

Skelly Oil Co. et al's No. 1 Comm. Gilchrist, C SE¼ Sec. 7-28-11w.
Set pipe 250 ft.

Reno County

Allison & Fitzwilliams' No. 1 Dukelow, NE NE NE Sec. 11-22-6w.
T.D. 3,430 ft.

Foraker et al's No. 1 Hiett, SE SW NE Sec. 24-24-4w.
U.R. 12-in. csg. to 1,485 ft.

Haynes Bros.' No. 1 Mueller, SE SE NW Sec. 30-24-4w.
Hunton 3,690-3,701 ft.; hole full fluid, mostly wtr.; pulled 5-in. csg. and P.B. to 3,339 ft.; acidized; swabbed down; est. 18 bbls. fluid per hr., 25% water.

McPherson Drlg. Co. et al's No. 1 Miller, NE NW Sec. 34-24-5w.
Drlg. 1,800 ft.

Shell Pet. Corp.'s No. 1 Reese, center W½ W½ SW¼ Sec. 11-26-9w.
Drlg. 2,677 ft.

Stanolind & Amerada's No. 1 J. J. Hilger, A. NE NE SW Sec. 21-26-4w.
Set whipstock 3,832 ft.

Rice County

Aylward et al's No. 1 Haas, NE NW NE Sec. 4-19-10w.
Drlg. 1,910 ft.

Aylward et al's No. 1 Rickard, SW SW NW Sec. 22-18-9w.
Siliceous 3,324 ft.; hole full water 3,376-3,400 ft.; plugged back to 3,260 ft.

Anderson & Kerr's No. 1 Wernet, NW cor. Sec. 24-20-6w.
Chat 2,297 ft.; set 7-in. csg.; T.D. 3,-294 ft.

Continental Oil Co.'s No. 1 Ferguson, SE NW NE Sec. 8-18-7w.
Drlg. 2,905 ft.

Day's No. 1 Mason, NW NE NE Sec. 28-21-7w.
Drlg. 2,690 ft.

James Davis' No. 1 Bernstorf, SE cor. Sec. 19-19-10w.
Drlg. 245 ft.

Detrick et al's No. 1 Conner, C NE NE Sec. 28-19-7w.
Drlg. 1,350 ft.

L. E. Douglas and Hutchinson O. & G. Co.'s No. 1 Hammell, NE NE NE Sec. 16-19-10w.
Drlg. 2,737 ft.

J. M. Hurd's No. 1 Wright, NE cor. Sec. 26-21-7w.
Cellar.

Three Rivers Oil Co.'s No. 1 Bushler, NW NW NW Sec. 17-18-8w.
Siliceous 3,425-35 ft.; T.D.; hole full water; abd.

Rooks County

El Dorado Refining Co.'s No. 1 Marshall, C SE SE Sec. 8-7-17w.
Set 15-in. csg. 958 ft.

F. A. Gillespie & Sons' No. 1 Low, NE NE NW Sec. 12-6-18w.
T.D. 1,965 ft.; casing parted.

Murfin et al's No. 1 Wasthusin, NE NE Sec. Sec. 19-9-16w.
Fshg. at 1,300 ft.

Lario O. & G. Co. et al's No. 1 Fisher, NE cor. Sec. 22-10-18w.
Drlg. 2,242 ft.

Smith & Ash's No. 1 Nelson, NW NW NE Sec. 27-10-16w.
H.F.W. 3,693-95 ft.; drlg. 3,783 ft.

Trees Oil Co. and Findeiss' No. 1 Johnson, SW SW SE Sec. 26-10-19w.
Oswald 3,285 ft.; oil 3,340-47 ft.; T.D. 3,349 ft.; swabbed 100 bbls. oil and 2 bbls. water 4½ hrs. and swabbed down to 45 ft. off bottom.

Rush County

E. L. Byers et al's No. 1 Ewing, NW SW SW Sec.
Bldg. rig.

Darby Pet. Co.'s No. 1 Jacobs, SW SW NW Sec. 3-16-19w.
Location.

Gypsy Oil Co.'s No. 1 Kraisinger, SE NE SE Sec. 23-18-17w.
Drlg. 3,588 ft.

Ramsey Pet. Co. et al's No. 1 Darken, C W½ W½ NW (correction) Sec. 5-17-20w.
K.C. lime 3,568 ft.; T.D. 3,711 ft.; plugged back to 3,533 ft.; drlg. by casing at 3,652 ft.

Twin Drlg. Co. et al's No. 1 Appl, SW SW NE Sec. 29-17-17w.
Hole full water 3,523-33 ft.; drlg. 3,-562 ft.

Russell County

J. Brouk and R. D. Bailey's No. 1 Kleusner, NW NW SE Sec. 34-15-12w.
Siliceous 3,275-78 ft.; 3,100 ft. oil in hole; set 5-in. pipe.

Central Pet. Co.'s No. 1 Ginther, NE cor. SW SW SE Sec. 19-12-15w.
Dry and abd. 3,376 ft.

Coralena Oil Co.'s No. 1 Berrick, NE NW NE Sec. 6-15-13w.
Drlg. 250 ft.

Coralena Oil Co.'s No. 1 Flegler, SE SE NE Sec. 11-15-14w.
Dry and abd. 3,350 ft.

Hartman & Blair's No. 1 Claussen, SE NE SW Sec. 34-12-14w.
Drlg. 2,280 ft.

Hartman & Blair's No. 1 Mills, SE SE SW Sec. 27-13-15w.
Drlg. 3,325 ft.

T. C. Johnson et al's No. 1 Mermis, NE NE SW Sec. 29-13-15w.
Building rig.

Murfin et al's No. 1 Gorham estate, NE NE SE Sec. 29-14-15w.
Moving in material.

Nassau Oil Corp.'s No. 1 Karst, NW SW NE Sec. 27-15-14w.
Topeka 2,790 ft.; S.D. 2,815 ft.

Roth & Faurot's No. 1 Shaffer, C NW NE Sec. 21-12-12w.
Oswald at 2,965-81 ft., T.D.; 800 ft. of oil in hole; bailer did not lower fluid level.

Stearns & Streeter's No. 1 Dreling, SW SW SW Sec. 8-13-15w.
Oswald 3,099 ft.; drlg. 3,347 ft.

Sedgwick County

Allison & Fitzwilliams et al's No. 1 Struthers, NE SW Sec. 34-28-2w.
Wilcox 4,104 ft.; hole full water at 4,-114 ft.; drlg. 4,260 ft.

Derby Oil Co. et al's No. 1 Bartholomew, SW SW NW Sec. 8-27-4.
Wilcox sand 4,035 ft.; drlg. 4,060 ft.

Dickey Oil Co. et al's No. 1 Chase, SE cor. Sec. 11-27-2.
U.R. 8-in. csg. to 2,851 ft.

Stafford County

Atlantic Oil Prod. Co. and Phillips Pet. Co.'s No. 1 Cornwall, C NE SW Sec. 4-25-12w.
Viola 3,982-88 ft.; small oil showing.

Rose-Spring Drlg. Co.'s No. 1 Toland, NW NW SW Sec. 2-25-14w.
K.C. lime 3,658 ft.; cored to 3,764 ft., small show of oil.

Sedgwick Oil Co.'s No. 1 Ellinwood Hunting Club, SE SW SW Sec. 33-21-11w.
Drlg. 3,503 ft.

Sumner County

Allison & Fitzwilliams et al's No. 1-B Hitchcock, SW SW NE Sec. 16-30-1w.
Dry and abd. 4,032 ft.

D. J. Wilson et al's No. 1 Clark, 1,320 ft. from W and 25 ft. from S line of NW Sec. 15-35-1w.
Drlg. 1,948 ft.

Winkler & Koch et al's No. 1 Belsley, SW SW NW Sec. 2-32-2w.
Drlg. 3,325 ft.

Trego County

Central Commercial's No. 1 Wagg, NW NW SE Sec. 17-13-21w.
Fishing at 1,600 ft.

Hansa & Lauck and Olson Drlg. Co.'s No. 1 Lang, SE SE NW Sec. 1-14-21w.
Cleaning out 2,645 ft.

Vickers et al's No. 1 Secor, NW NW NW Sec. 25-15-24w.
U.R. 6-in. csg. to 2,775 ft.; T.D.

Woodson County

Saco Oil Co.'s No. 1- Hassenpflug, SW NW NE Sec. 34-25-14.
Drlg. 1,415 ft.

Chas. Sheedy's No. 1 Snattinger, C E½ NE NE Sec. 3-26-14.
Dry and abd. 1,600 ft.

GULF COAST WILDCATS

Week Ending September 14

Raccoon Bend—Austin County

Humble O. & R. Co.'s No. 16-X Paine, 933 ft. southeasterly from Robert G. Paine's No. 13-X, 500 ft. at R/A southwest from NE line, Wm. C. White Sur.
T.D. 4,095 ft.; I.P. 18 bbls. per hr., ¼-in. choke, 550 lbs. T.P.

Humble O. & R. Co.'s No. 3 H. F. Granen, 682 ft. NE of No. 1, 150 ft. SE of NW¼ of 63.8-ac. tract, Smeathers Sur.
Location.

Humble O. & R. Co.'s No. 7-X McCasland, 190 ft. NW line, 168 ft. SE line of Smeathers & White Sur.
Location.

Hastings—Brazoria County

Humble O. & R. Co.'s No. 1 G. C. Cannon, 330 ft. N, 330 ft. W from SE cor. of 60-ac. lease, H.T.&B. Sur., Sec. 36.
Drlg. shale 3,039 ft.

Humble O. & R. Co.'s No. 1 J. F. Bridges, center of N 10 acres of 20-ac. lease, A.C.H.&B. Sur. No. 2.
Location.

Humble O. & R. Co.'s No. 2 J. F. Bridges, center of S 10 acres of 20-ac. lease, A.C.H.&B. Sur. No. 2.
Location.

Stanolind Oil & Gas Co.'s No. 3 Drake, 330 ft. N, 330 ft. E of SW cor. of 120-ac. tract, H.T.&B. Sur. No. 36.
Digging cellar.

Stanolind O. & G. Co.'s No. 2 Ford, 330 ft. N, 3,092 ft. W of SE cor. of 199.3-ac. tract, A.C.H.&B. Sur. No. 1.
Digging cellar.

Stanolind O. & G. Co.'s No. 2 Kidd, A.C. H.&B. Sur. No. 2, 330 ft. E of most easterly W line, 416 ft. S of N line of 58.4-ac. tract.
Reaming 1,231 ft.

Stanolind O. & G. Co.'s No. 2 Miller, A.C.H.&B. Sur. No. 2, 831 ft. S, 258 ft. W of NE cor. of 39.39-ac. tract.
Derrick.

Stanolind O. & G. Co.'s No. 5 Sneed, A.C. H.&B. Sur. No. 2, 330 ft. N, 330 ft. E of NE cor. of Lot 12, D. M. Jay Subd., 2.25-ac. tract.
T.D. 2,176 ft.; 10¾-in. at 2,174 ft.

Stanolind O. & G. Co.'s No. 3 Williams, A.C.H.&B. Sur. No. 1, 330 ft. W, 119.4 ft. S inside of NW cor. of 88.5-ac. tract.
Location.

Stanolind O. & G. Co.'s No. 2 Guido, 330 ft. N, 1,650 ft. W from SE cor. of 40-ac. lease, H.T.&B. Sur. No. 36.
Drlg. shale 3,480 ft.

Stanolind O. & G. Co.'s No. 2 Drake, 330 ft. N, 1,650 ft. W from SE cor. of 120-ac. lease, H.T.&B. Sur. No. 36.
Derrick.

Stanolind O. & G. Co.'s No. 2 Pennock, 330 ft. N, 1,650 ft. W from SE cor. of 40-ac. lease, H.T.&B. Sur. No. 36.
Derrick.

Stanolind O. & G. Co.'s No. 3 Grate, 608 ft. N, 764 ft. W of SE cor. of 71.6-ac. tract, A.C.H.&B. Sur. No. 2.
T.D. 2,960 ft.; 7-in. csg. at 2,906 ft.; W.O.C.; tested salt water; T.P. 1,200 lbs.; C.P. 1,350 lbs.; P.B. 2,930 ft.

Stanolind O. & G. Co.'s No. 4 Sneed, 330 ft. S, 330 ft. W of NE cor. of Lot 12, D. M. Jay Subd., on Sneed 225-ac. tract, A.C. H.&B. Sur. No. 2.
T.D. 7,970 ft.; plugged back to 4,550 ft.

Manvel—Brazoria County

Jay Simmons' No. 1 Wilson, center of Lot 25, H.T.&B. Sur. No. 23.
Location.

J. Simmons et al's No. 1 Martens, 31 ft. WE line center of North and South lines, Lot 10.
S.D. 1,120 ft.

J. W. Sorrells' No. 1 Swift, Blk. 21, Abst. 318, H.N. Little Sur.
Derrick.

Texas Co.'s No. 15-B Belcher, N 42 degrees E, 1,371 ft. and N 48 degrees W, 330 ft. from SW cor. H. N. Little Sur.
Rig up.

Texas Co.'s No. 14 Houston Oil Field Material Co., 203 ft. E, 360 ft. S of NW cor. Lot 33, A.C.H.&B. Sur. Sec. 91.
10-in. csg. 1,124 ft.; T.D. 1,140 ft.

Texas Co.'s No. 1 A. Cooper, 247.5 ft. N, 330 ft. E of SW cor. of Lot 20, H.T.&B. Sur., Sec. 24.
Rigging up.

Texas Co.'s No. 18 Houston Oil Field Association, 330 ft. S, 330 ft. W from NE cor. Lot 24, A.C.H.&B. Sur., Sec. 91.
Drlg. sand 3,980 ft.

Texas Co.'s No. 1 Smith, 330 ft. W of E line, 247.5 ft. N of S line of Lot 17, H.T.&B. Sur. No. 23.
Drlg. sand 4,014 ft.

Texas Co.'s No. 6 Houston Oil Field Asso., 247.5 ft. S, 400 ft. W of NE cor. of Lot 25, A.C.H.&B. Sur., Sec. 91.
T.D. 4,010 ft.; I.P. 100 bbls. per day.

Texas Co.'s No. 2 Dawson, 247 ft. S, 241 ft. W of NE cor. of Lot 58, H.T.&B. Sur. No. 23.
Location.

Uscan Oil Co.'s No. 1 France, H.T.&B. Sur. No. 23, 150 ft. W of E line, 490 ft. S of N line, Lot 9.
T.D. 5,745 ft.; coring sand in sidetracked hole 4,010 ft.

Old Ocean—Brazoria County

Harrison & Abercrombie's No. 2 Bernard River, 1,000 ft. N, 54 deg. W, 400 ft. S, 36 deg. W of No. 1, Charles Breen Sur.
Fishing 4,927 ft.

Pledger—Brazoria County

Humble O. & R. Co.'s No. 1 Josie Hirsch Block, Moore Sur.
Drlg. shale 3,325 ft.

Port Lavaca—Calhoun County

Crown Central Oil Co.'s No. 1 Wilson, 600 ft. NW line, in center of tract, A. Esparza Sur.
Drlg. shale 5,430 ft.

Halliburton Oil Co.'s No. 4 Burton, M. Sanches Sur.
Prepare to make drill stem test, cored oil sand 6,211-33 ft.

Steinberger Pet. Co.'s No. 1 Hartman, 466 ft. out of SE cor. of tract, M. Sanches Sur.
Prepare to core 6,026 ft.

Texas Co.'s No. 2 Shofner, 466 ft. S of N line, 466 ft. E of W line, 50-ac. tract, Maximo Sanchez League.
Drlg. shale 4,235 ft.

Anahuac—Chambers County

Gulf Prod. Co.'s No. 1 Knowles, 2,154 ft. SN line, 467 ft. EW line, Sec. 48, H.&T.C. Sur.
Drlg. shale 6,975 ft.

Humble O. & R. Co.'s No. 5 Broussard, 2,212 ft. E of W line, 466 ft. S of N line of Sec. 63, H.&T.C. Sur.
Location.

Humble O. & R. Co.'s No. 5 Clark, 1,945 ft. S of N line, 466 ft. E of W line, Sec. 57, H.&T.C. Sur.
Location.

Humble O. & R. Co.'s No. 6 Clark, 1,339 ft. N of S line, 466 ft. E of W line of Sec. 57, H.&T.C. Sur.
Location.

Humble O. & R. Co.'s No. 7 Middleton, 466 ft. E of W line and N of S line of 100-ac. tract in NE cor. of Sec. 56, H.&T.C. Sur.
Location.

Humble O. & R. Co.'s No. 6 Engel's, 1,000 ft. E of No. 1 466 ft. N of S line, 1,474 ft. E of W line, Sec. 50, H.&T.C. Sur.
Location.

Humble O. & R. Co.'s No. 8 Middleton, 2,212 ft. E of W line, 466 ft. N of S line of Sec. 58, H.&T.C. Sur.
Location.

Humble O. & R. Co.'s No. 4 Clark, 2,212 ft. S of N line, 466 ft. W of E line of Sec. 57, H.&T.C. Sur.
Drlg. shale 4,156 ft.

Humble O. & R. Co.'s No. 6 Middleton, 1,398 ft. S of N line, 1,397 ft. W of E line of H.&T.C. Sur., Sec. 64.
Drlg. shale 2,992 ft.

Humble O.1 & Refg. Co.'s No. 5 Meddleton, 464 ft. W of E line, 1,339 ft. S of N line of Sec. 58, H.&T.C. Sur.
Drlg. shale 5,006 ft.

Humble O. & R. Co.'s No. 2 Broussard, 2,332 ft. E of W line, 2,332 ft. N of S line of Sec. 63, H.&T.C. Sur.
Location.

Johnson & Anderson's No. 1 J. T. White, 466 ft. from S and E lines of N 400 acres of James McGahey Sur.
Rig.

Mason & McCarthy's No. 2 White, 932 ft. W of No. 1, 466 ft. N of S line of James McGahey Sur.
S.D. 756 ft.

Sun Oil Co.'s No. 2 White, 467 ft. SN line, 933 ft. W of No. 1, James McGahey Sur.
Cemented sur. csg. 1,245 ft.

Woodley Pet. Co.'s No. 1 Blanke, 330 ft. NS line, 990 ft. EW line, Sec. 41, H.& T.C. Sur.
Drlg. shale 2,637 ft.

Barbers Hill—Chambers County

Sun Oil Co.'s No. 7 Higgins, 50 ft. S of N line, 50 ft. W of E line.
T.D. 5,090 ft.; 7-in. csg. 5,037 ft.; flowing by heads; T.P. 100 lbs.

Texas Co.'s No. 7 Wilburn (workover).
T.D. 5,197 ft.; P.B. to 5,181 ft.; swabbed 13 bbls. net oil, BB&W 14 per cent.

Big Creek—Fort Bend

Trans State Oil Co.'s No. 1 B. J. Wheat, 108 ft. N of S cor. of J. F. Ahlers lease and 88 ft. E at right angles, W. Young Sur.
T.D. 3,689 ft.; 7-in. csg. 3,681 ft., perforated csg., swabbing.

Boling—Fort Bend County

Sun Oil Co.'s No. 2 H. R. Farmer, 70 ft. SW line, 187 ft. NW line of 100-ac. tract, J. Scott Sur.
T.D. 3,899 ft.; 7⅝-in. csg. 3,880 ft.; swabbed dry; let stand 12 hrs. fluid rose 250 ft. in hole; rigging up to pump.

Texas Co.'s No. 13 Anne Taylor, 150 ft. N at R/A of 10-ac. tract, S. F. Austin League.
T.D. 3,573 ft.; P.B. to 3,400 ft.; set 7-in. csg. at 3,282 ft.

Orchard—Fort Bend County

Gulf Prod. Co.'s No. 44 Moore, 500 ft. NW of No. 42, Leo Burknapp Sur.
Drlg. shale 2,630 ft.

Gulf Prod. Co.'s No. 43 Moore, 350 ft. E along S line of SW cor. of E.M.&G. Co. Sur. and 740 ft. N at R/A to said line of lease, 350 ft. E of No. 3 Moore.
T.D. 6,652 ft.; reaming at 6,633 ft.

High Island—Galveston County

Stanolind O. & G. Co.'s No. 49 Cade, 372 ft. from NW line, 150 ft. from NE line of N. Fitzsimmons Sur.
Drlg. shale 735 ft.

Stanolind Oil & Gas Co.'s No. 1-A Viterbo, 5,255 ft. of N line, 81 ft. W of E line of Lot 4, M. Dunman Sur.
T.D. 4,721 ft., reaming to set 7⅝-in. csg. at 4,612 ft.

Stanolind O. & G. Co.'s No. 3-A Taylor, 62.5 ft. from W line of lease, 164 ft. S of No. 1-A, M. Dunman Sur.
Drlg. lime and shale 3,514 ft.

Stanolind O. & G. Co.'s No. 4-A Taylor, 62.5 ft. from W line of 15.7-ac. tract, 120 ft. N of No. 1-A M. Dunman Sur.
Drlg. sand and lime 2,110 ft.

Stanolind O. & G. Co.'s No. 48 Cade, 900 ft. SE and 150 ft. NE of SW corner Block 4, Fitzsimmons Survey.
Drlg. shale and lime 4,325 ft.

Yount Lee Oil Co.'s No. 3 Maco-Stewart.

203 ft. S of No. 2 Stewart and 123 ft. W of E line of 7.73 acre tract, D. Dunman Sur.
Drlg. sand and shale 5,008 ft.

Dickinson—Galveston County

Humble O. & R. Co.'s No. 1 J. F. Magale, 500 ft. SW at right angles to projected center line of road along N line of Block 99, San Leon Farm Home tract, 345 ft. at right angles to E line of Lot No. 1, San Leon Farm Home tracts, 213 ft. from E line of J. C. Magale 346.46-ac. tract, A. Edwards Sur.
Drlg. shale 3,101 ft.

Humble Oil & Refg. Co.'s No. 6-A Maco Stewart, 6,087 ft. S of NE corner, 1,390 ft. W of E line and 1,390 ft. E of W line and 466 ft. N of S line of Stewart 863-acre lease, J. Sellers Sur.
Drlg. shale 7,360 ft.

Humble O. & R. Co.'s No. 5-A Stewart, 466 ft. W of E line of Stewart "A" Lease, 5,500 ft. due S of No. 2-A Stewart, John Sellers Sur.
Rig.

Humble O. & R. Co.'s No. 1 Bayou Development Co., 375 ft. S of N line and midway between E and W line of Lot No. 7, John Sellers Sur.
T.D. 9,085 ft., 7-in. csg. 9,069 ft.

Humble O. & R. Co.'s No. 1 E. E. Anderson, 375 ft. N of S line, and midway between E and W lines of Lot No. 4, John Sellers Sur.
Drlg. shale 6,361 ft.

Pure Oil Co.'s No. 2 J. W. Shelor, 779 ft. N, 182 ft. W of N. I. Shelar, B.B.B. &C. Sur.
T.D. 8,461 ft. shale, no show, repairing rotary.

Stanolind O. & G. Co.'s No. 3 State, 633 ft. SE of No. 1, 218 ft. N of S bank of Dickinson Bayou Sur., Tract No. 3.
Building derrick.

Stanolind O. & G. Co.'s No. 2 State, 1,369 ft. E of No. 1 State.
Drlg. shale 1,200 ft.

Arriola—Hardin County

Houston Oil Co.'s No. 7-X fee, 660 ft. 20 deg. 30 ft. SE from No. 1-X.
Drlg. sandy shale 3,030 ft.

Batson—Hardin County

John Deering and Batson Oil Co.'s No. 4 Mary Hooks, located halfway between No. 1 and No. 3, W. Donoho Sur.
T.D. 3,909 ft., drill stem stuck at 1,200 ft.

John Deering's No. 2 Cruse, 200 ft. E and 50 ft. S of No. 1 Cruse, W. Donaho Sur.
T.D. 5,143 ft.; pulling screen and liner to deepen.

Texas Co.'s No. 1 Christian, 100 ft. from W line, 350 ft. from N line of 26.45-ac. tract, W. Donoho Sur.
Rig up.

Saratoga—Hardin County

Rio Bravo Oil Co.'s No. J-16-M, 1,590 ft. S of N line, 360 ft. W of E line, C. F. S. Jordit Sur.
T.D. 1,275 ft.; set 30 ft. of screen, bailed salt water, standing.

Pierce Junction—Harris County

J. S. Abercrombie et al's No. 6 Ritter, 125 ft. N of highway, 190 ft. W of No. 5, James Hamilton Sur., Sec. 51.
Drlg. lime 2,440 ft.

Gulf Prod. Co.'s No. 11 H. C. Cain, 390 ft. from W line, thence 439 ft. at R/A to N line of 130-ac. tract, Jas. Hamilton Sur. No. 98.
Shale 6,955 ft.; P.B. 4,350 ft., set whipstock 3,715 ft.

W. H. Holland et al's No. 1, I.&G.N.R.R., 836 ft. from S line of Jas. Hamilton Sur. 7-in. csg. 3,970 ft.; tested S.W.; T.D. 3,984 ft.; no report.

Navarro Oil Co.'s No. 3-A Cain, 75 ft. S line, 50 ft. W line, Jas. Hamilton Sur.
T.D. 6,606 ft.; reaming to bottom.

Navarro Oil Co.'s No. 3-B Cain, Jas. Hamilton Sur.
Drlg. shale 6,451 ft.

Rio Bravo Oil Co.'s No. 28 Settegast, 1,010 ft. W and 450 ft. N from most southerly SE corner of "B" Lease, J. Kopmen Sur.
T.D. 3,994 ft.; sandy shale; P.B. to 3,608 ft.; to perforate csg.; abandoned; tested salt water.

Wright et al's No. 1 Higgins, 25 ft. from S and W lines of Lot 2 of W. H. Jones 25-ac. Subvd., B.B.B.&C. R.R. A-179.
Rig up.

Humble—Harris County

Sun Oil Co.'s No. 91 River Lease, 671 ft. N of S line, 200 ft. W of No. 56, 400 ft. W of E line of Robert Dunman Sur.
T.D. 1,300 ft.; 12-in. csg. at 1,286 ft.

Sun Oil Co.'s No. 30 Bender, 2,393 ft. N, 3,080 ft. W of most northerly SE cor. of lease; H. Adams Sur.
Reaming 4,709 ft.

Texas Co.'s No. 38 Koehler, 1,750 ft. N, 500 ft. E of SW cor. of the tract, J. B. Stevenson Sur.
Rig up.

Mykawa—Harris County

Alpha Pet. Co.'s No. 1 Waggenhausen, C of E½ Lot 10, F. J. Rothas Sur.
T.D. 4,681 ft.; P.B. 4,554 ft.; shot pipe and pulled 1,600 ft.; sidetracked at 1,476 ft.; drilled to 4,547 ft.; abandoned.

West Production Co.'s No. 4 Platt, 806 ft. W of E line, 255 ft. N of S line of lease, W. B. Walters Sur.
Rigging up.

West Prod. Co.'s No. 3 Irwin, 806 ft. WE line, 255 ft. S of N line, W. B. Walters Sur.
10-in. csg. at 1,304 ft.; W.O.C.

West Prod. Co.'s No. 1 W. Lang, John R. Hall Sur., Blk. 7.
Abandoned 7,355 ft.

West Prod. Co.'s No. 3 Platt.
T.D. 4,586 ft.; P.B. to 4,561 ft.; I.P. 157 bbls. of oil per day by heads.

South Houston—Harris County

Stanolind O. & G. Co.'s No. 1 fee, 330 ft. S, 200 ft. E of NW cor. of 20-ac. tract, H.T.&B. Sur. No. 5.
T.D. 5,682 ft.; fishing at 4,793 ft.

Stanolind O. & G. Co.'s No. 1 First National Bank, 950 ft. from NE line, 890 ft. from SE line of 119.6-ac. tract, Callahan & Vince Sur.
T.D. 4,753 ft.; I.P. 155 bbls. per day, ¾-in. choke.

Stanolind O. & G. Co.'s No. 1 F. J. Burkey, C of Lot 15, Blk. 105, 960 ft. W and 3,570 ft. N of No. 1, H.T.&B. Sur. No. 5.
T.D. 4,062 ft.; 7⅝-in. csg. at 4,017 ft.

Stanolind O. & G. Co.'s No. 1 C. E. Gibson, C of Lot 99, Blk. 41, 1,180 ft. W, 1,090 ft. N of No. 1, H.T.&B. Sur. No. 5.
T.D. 4,030 ft.; I.P. 18 bbls. per hr.; ¼-in. choke, 485 lbs. T.P.; 100 lbs. C.P.

Stanolind O. & G. Co.'s No. 1 Hartow, C Lot 10, Blk. 82, 1,390 ft. E, 660 ft. S of No. 1, H.T.&B. Sur. No. 5.
Drlg. shale 4,898 ft.

Stanolind O. & G. Co.'s No. 1 Ed Wells, C Lot 3, Blk. 146, 1,240 ft. E, 2,270 ft. N of No. 1, H.T.&B. Sur. No. 5.
Drlg. shale 4,673 ft.

Tomball—Harris County

Amerada Stanolind No. 1 Hilligeist, J. House Sur.
Drlg. shale 2,854 ft.

Amerada-Stanolind's No. 3 Nelson, 466 ft. from S line, 421 ft. from E line of 34-ac. tract, 421 ft. from E line of C. Goodrich Sur.
Drlg. sandy shale 4,680 ft.

Amerada Pet.-Stanolind O. & G. Co.'s No. 1 Hilligeist, 550 ft. NS line, 168 ft. WE line of 11-ac. tract, J.House Sur.
Drlg. sticky shale 3,170 ft.

Humble O. & R. Co.'s No. 1 Michel, 491 ft. E of W line of Sur. and on line between lots 178 and 182 Tomball Townsite, J. Pruitt Sur.
Location.

Humble O. & R. Co.'s No. 3 Hoffman, 466 ft. out of NE cor. of 123-ac. Hoffman tract, J. House Sur.
Drlg. shale 4,219 ft.

Humble O. & R. Co.'s No. 1 Spell, Elizabeth Smith Survey, 466 ft. from SW line, 466 ft. from SE line.
Drlg. shale 5,552 ft.

Humble O. & R. Co.'s No. 3 Shearer, J. H. Edwards Sur., 933 ft. S of No. 1.
Drlg. shale 5,313 ft.

Humble O. & R. Co.'s No. 5 Martens, 1,448 ft. S of N line, 13,625 ft. W of E line, Wm. Hind Sur.
T.D. 5,567 ft.; W.O.C.

Humble O. & R. Co.'s No. 1 Tomball townsite, Unit 17, 185 ft. NW of SE line, 405 ft. SW of NE line, C of Lot 5, Blk. 7, Tomball townsite.
T.D. 5,585 ft.; I.P. 2,500,000 ft. gas per day, ¼-in. choke, 2,050 lbs. T.P.

Big Hill—Jefferson County

Stanolind O. & G. Co.'s No. 2-A Pipkin & Davis, 1,430 ft. SW of NE cor. of Pipkin & Davis lease along SE line of same and 50 ft. SE at right angles, William McFaddin Sur.
Drlg. shale and lime 3,230 ft.

Stanolind O. & G. Co.'s No. 1-B Pipkin & Davis, 2,225 ft. from E line and 2,385 ft. from N line of survey, Wm. McFadden Sur.
T.D. 6,088 ft., reaming 5,930 ft.

Fannett—Jefferson County

Gulf Prod. Co.'s No. 17 Thomas, 751 ft. W of SE cor., 100 ft. N of SE cor. of E. Thomas 440-ac. tract.
T.D. 4,033 ft., top oil sand 4,015 ft., will probably drill deeper.

Cleveland—Liberty County

Gulf Prod. Co.'s No. 10-C Kirby, 2,245 ft. from W line, 2,363 ft. from S line of John Pleasant Survey.
T.D. 5,844 ft.; 3-min. D.S.T. showed 75 lbs. pressure; 450 ft. mud; S.O.; cmtd. 7-in. csg. at 5,834 ft.; I.P. 236 bbls. per day through ¼-in. choke, T.P. 1,400 lbs., C.P. 1,700 lbs.

Esperson—Liberty County

General Crude's No. 1 Hlavaty, 467 ft. out of SE cor. of F. M. Gardner Sur.
T.D. 7,141 ft., reaming.

Hankamer—Liberty County

Eastman-Ward's No. 1 R. E. Lee, 115 ft. from N line of lease and 76 ft. W of west bank of White Bayou, Geo. Stengler Sur.
Drlg. gumbo 1,710 ft.

Eljean Oil Co.'s No. 1 Thomas, 300 ft. W of E line, 300 ft. SN line, Levi Barrow Sur.
Rig up.

Gulf Prod. Co.'s No. 5 Crow & Jacobs, 2,900 ft. N, 2,140 ft. E of SW cor. of 300-ac. lease, H.&T.C. Sur.
Location.

Gulf Prod. Co.'s No. 23 Boyt.
T.D. 4,214 ft.; prepare to make drill stem test.

Gulf Prod. Co.'s No. 1-B W. L. Bingle, 153 ft. E along S line of H.&T.C. Sur., thence 378 ft.
T.D. salt 7,667 ft.; P.B. 5,153 ft.; I.P. 200 bbls. oil per day through ¼-in. choke.

Gulf Prod. Co.'s No. 21 E. W. Boyt, 110 ft. from W line of Amos Allen Sur.
Location.

Hull—Liberty County

Gulf Prod. Co.'s No. 109 Phoenix, 2,225 ft. S along W line from NW cor. of 300-ac. lease and 300 ft. E at R/A, J. Devore Sur.
Rig.

Van Vleck—Matagorda County

Skelly Oil Co.'s No. 1 Turner, 523 ft. E from SW cor. of F. Metzler 135-ac. tract, thence 466 ft. S at R/A in Maria Cummins Sur.
Drlg. shale 6,850 ft.

Skelly Oil Co.'s No. 3 Cobb "B," 2,750 ft. from NW line, 2,900 ft. from SW line of M. Cummins Sur.
T.D. 9,000 ft., reaming to set 7-in. csg.

Conroe—Montgomery County

Humble O. & R. Co.'s No. 77-A South Texas Dev. Co., 933 ft. N of No. 76-A, 1,603 ft. NE of SW line Theodore Slade Sur.
Drlg. shale 3,702 ft.

Humble O. & R. Co.'s No. 76-A South Texas Dev. Co., 1,555 ft. from W line, 1,378 ft. from S line, Theo. Slade Sur.
10¾-in. csg. at 976 ft.; top sand 5,055 ft.; T.D. 5,065 ft.; I.P. 18 bbls. per hour.

Sun Oil Co.'s No. 25 Keystone Mills.
Drlg. shale 5,034 ft.

Sun Oil Co.'s No. 17 Foster.
T.D. 5,116 ft.; I.P. 91 bbls. in 9 hrs., ½-in. choke.

Sun Oil Co.'s No. 10 Keystone Mills.
Derrick.

Splendora—Montgomery County

Bryce McCandless et al's No. 1 Texas Long Leaf Lbr. Co., 330 ft. from N and E lines of the W½ of Blk. No. 8, Walker County School Land Sur.
Derrick.

Fort Neches—Orange County

Texas Co.'s No. 5 Stark, 400 ft. from S and 125 ft. from E line of lease, M. E. Hall Sur.
T.D. 4,581 ft.; sidetracked 2,988 ft.; T.D. 3,760 ft.; flowed 8 to 11 bbls. per hour on ⅝-in. choke; T.P. 60 lbs.; C.P. 450 lbs.

Livingston—Polk County

Gem Oil Co.'s No. 7 Davis & Holmes (workover).
Old T.D. 4,330 ft.; drlg. shale in new hole at 2,680 ft.

Hawkeye Pet. Co.'s No. 2 Howard, A. Viesca Sur.
Drlg. shale 2,810 ft.

Humble O. & R. Co.'s No. 16 Granbury, 1,399 ft. from NW and 466 ft. from NE lines of Block No. 11, A. Viesca Sur.
Location.

Humble O. & R. Co.'s No. 15 Granbury, 466 ft. from NE and NW lines of Blk. 11, A. Viesca Sur.
Drlg. shale 4,170 ft.

Blake Smith, Jr., et al's No. 1 J. O. Nelson, A. Viesca Sur., 330 ft. S and W lines of E 80 acres, 300-ac. tract.
Drlg. shale 2,660 ft.

Sun Oil Co.'s No. 8 Pratt, 466 ft. NE of SW line, 933 ft. SE of No. 7 Pratt, A. Viesca Sur., 7 Leagues, A-77.
Rig up.

Sun Oil Co.'s No. 7 Pratt, 466 ft. from N and W lines of 195-ac. tract, A. Viesca Sur.
T.D. 4,246 ft.; 7-in. at 4,233 ft.; I.P. 250 bbls. per hour in 24 hrs. through ½-in. choke, T.P. 850 lbs.; C.P. 1,050 lbs.

Sun Oil Co.'s No. 6 Pratt, 330 ft. from S line of lease, 660 ft. W of No. 2, A. Viesca Sur.
Rig up.

Greta—Refugio County

Atlantic-Stanolind O. & G. Co.'s No. 7 A.M.J.
T.D. 5,924 ft.; 7-in. csg. 5,924 ft.

Hewett and Daugherty's No. 21 Lambert, Lot 10, J. Connell Sur.
Prepare to make drill stem test; T.D. 4,403 ft.

Refugio—Refugio County

Houston Oil Co.'s No. 19 W. J. J. Heard, Coring shale and lime at 4,900 ft.

Coletto Creek—Victoria County

American-Liberty Oil Co.'s No. 2 J. Machalee, 330 ft. E of country road, 330 ft. NE of SW line, R. Manchola grant.
Drlg. shale 1,210 ft.

Placedo—Victoria County

Barnsdall-Felmont Oil Co.'s No. 1 Pickering, 330 ft. NW line, SW line and railroad, NE offset to No. 1 Gray, S.A.&M.G. Sur.
Rig up.

J. McDowell's No. 1 Kirasek, center Blk. 45, Placedo Townsite.
Location.

C. F. McGrew's No. 1 Hadley, center of 20-ac. lot, S.A.&M.G. Sur., Sec. 9, Blk. 49, Lots 1 and 2.
Location.

Mortex Oil Co.'s No. 1 Mitchell, 330 ft. S of W line, 330 ft. N of W line of 500-ac. tract, E. Benavides Sur.
T.D. 6,050 ft.; P.B. 5,332 ft.; tested salt wtr.; S.D.

Sun Oil Co.'s No. 1 Marek, 330 ft. EW line, 330 ft. SN line of NW cor. of 113.5-ac. tract, S.A.&M.G. Sur. No. A-382.
Sand 4,757-77 ft.; flowing by heads, no gauge.

Clay Creek—Washington County

Pompy et al's No. 1 Klatte, J. F. Perry League, 150 ft. each way out of NW cor. of 50-ac. tract.
T.D. 1,240 ft.; shale; washing to bottom.

Sun Oil Co.'s No. 4 Schimmer, 150 ft. SE of NW line, 450 ft. SW of No. 2, Nester Clay Sur.
Rig up.

Louise—Wharton County

Fure Oil Co.'s No. 1-B Garrett, 506.47 ft. NE, 429.5 ft. SE from W cor. of Sur No. 27, Morris & Cummings Sur.
T.D. 4,580 ft., prepare to core.

Pure Oil Co.'s No. 1 J. H. Roberts, 990 ft. SW and 660 ft. SE of N cor. of 30-ac. tract, Morris & Cummings Sur.
T.D. 5,150 ft.; 7-in. at 5,130 ft.; running screen, tubing and liner.

Fure Oil Co.'s No. 2 Weever, 1,980 ft. SW, 990 ft. NW of E cor. of Sec. 22, J. M. Brownson Sur.
T.D. 5,762 ft.; showed 52 per cent salt wtr. cut and pulled screen; P.B. to 5,162 ft.; swabbing.

Shell Pet. Corp.'s No. 1 A. and E. Steves, 1,400 ft. E and 1,200 ft. S of NW cor. of 1,279.4-ac. lease, J. J. Dillard Sur.
T.D. 7,104 ft.; shale; washed hole from 6,471-7,104 ft.

Pickett Ridge—Wharton County

Texas Co.'s No. 1-C Pierce, 17,997 ft. N, 62 deg. E, 3,400 ft. N, 28 deg. W from S cor. of Pierce Estate Land, John Caldwell Sur.
Drlg. gumbo and lime 1,040 ft.; 20-in. csg. at 21 ft.

SOUTH LOUISIANA FIELDS

Bayou St. Dennis—Jefferson Parish

Texas Co.'s No. 2 Bayou St. Dennis, 466 ft. N, 1,194 ft. W of SE cor. Sec. 19-17-24.
T.D. 9,647 ft.; I.P. 1,800 bbls. per day through ¼-in. choke.

Black Bayou—Cameron Parish

Shell Pet. Corp.'s No. 25 Watkins, Sec. 18-12s-12w.
Drlg. hard sand 3,057 ft.

Shell Pet. Corp.'s No. 26 Watkins, 3,350 ft. W, 100 ft. S of NE cor. of Sec. 18-12s-12w.
Location.

Shell Pet. Corp.'s No. 24 Watkins, 2,832 ft. W, 695 ft. S of NW cor. Sec. 18-12-12.
Drlg. salt 3,133 ft.

Bay St. Elaine

Texas Co.'s No. 3 School Board, Sec. 16-22s-18e.
Location.

Texas Co.'s No. 10 State, 4,550 ft. E and 4,595 ft. S of NW cor. Sec. 17-22s-18e.
T.D. 6,127 ft.; P.B. in sidetracked hole 2,360 ft.; drlg. shale and shells, 4,630 ft.

Caillous Island—Terrebonne Parish

Texas Co.'s No. 1 State Terrebonne Bay, Sec. 19-23s-20e.
Coring sand and shale 5,010 ft.

Texas Co.'s No. 27 State, Sec. 17-23s-20e.
P.B. 3,225 ft.; sidetracked at 3,220 ft.; T.D. 4,113 ft., reaming.

Tepetate—Acadia Parish

Continental Oil Co.'s No. 1 Federal Land Bank, cen. of S½ of NW¼, NW¼ Sec. 28-7s-2w.
Rig up.

Continental Oil Co.'s No. 1 Henry Klumpp, 660 ft. W, 330 ft. S of NE cor. of Sec. 34, Twp. 7s-2w.
Cemented 18⅝-in. csg. at 178 ft.; W.O.C.

Continental Oil Co.'s No. 1 Homeseekers Dev. Co., 3,300 ft. W, 2,640 ft. N of SE cor. of Sec. 29-7s-2w.
T.D. 1,546 ft.; cemented 13⅜-in. csg. at 1,502 ft.; W.O.C.

Darrow—Ascension Parish

Humble O. & R. Co.'s No. 3 Gumble, 850 ft. E from center line of R-W along the Rose-Gumble property, 72 ft. NW at R/A Sec. 33-10s-2e.
Abandoned 5,087 ft.

Humble O. & R. Co.'s No. 6 Community, 4,825 ft. from NE cor. and 283 ft. S of N line at R/A, Sec. 33-10s-2w.
Rig.

Cameron Meadows—Cameron Parish

Magnolia Pet. Co.'s No. 14 Cameron Meadows, 296 ft. W, 150 ft. S of NE cor. Sec. 21-14s-13w.
Drlg. shale 3,410 ft.

Burton Sutton Oil Co.'s No. 8 School Land, Sec. 16-14s-13w.
Drlg. shale 3,530 ft.

Burton Sutton Oil Co.'s No. 4 School Land, Sec. 16-14s-13w.
Derrick.

Choctaw Dome—Iberville Parish

Zeni Oil Co.'s No. 1 Schwing, Sec. 19-17s-24e.
Drlg. shale 4,270 ft.

Dog Lake—Terrebonne Parish

Texas Co.'s No. 11 State, 1,100 ft. N, 2,476 ft. W of SE cor. of Sec. 21-21s-16e.
S.D. 2,014 ft.

Four Isle—Terrebonne Parish

Texas Co.'s No. 6 State, 1,933 ft. S, 2,100 ft. W of NE cor. of Sec. 23-21s-16.
Bldg. derrick.

Texas Co.'s No. 8 La. Land & Expl. Co., 2,177 ft. E, 1,385 ft. S of NW cor. Sec. 24-21s-16e.
Rig up.

Texas Co.'s No. 5 State, 885 ft. S, 2,327 ft. E of NW cor. of Sec. 24-21s-16e.
Location.

Garden Island Bay—Terrebonne Parish

Texas Co.'s No. 16 Garden Island, Sec. 37-23s-33e.
T.D. 4,930 ft.; 5-in. csg. 4,895 ft.

Texas Co.'s No. 13 State, 3,391 ft. S and

1,604 ft. W of NE cor. Sec. 107-22-32.
Rig up.

Gillis—Calcasieu Parish

Fohs Oil Co.'s No. 7 Castle, 1,115 ft. S. 350 ft. E of NW cor. of NW cor. of NW¼ of SE¼ Sec. 14-9s-8w.
Bldg. derrick.
Fohs Oil Co.'s No. 1 Airhart, 275 ft. W and S of NE cor. Sec. 14-9-8.
Drlg. shale 8,290 ft.
Fohs Oil Co.'s No. 6 Castle, 300 ft. S, 700 ft. E of NW cor. of SW¼ of SW¼ Sec. 13-9s-8w.
Drlg. shale 6,485 ft.
Texas Co.'s No. 6 Nickerson, 287 ft. N, 289 ft. W of SE cor. of NW¼ Sec. 12-9s-8w.
Drlg. shale 3,910 ft.
Union Sulphur Co.'s No. 4 Barbe, 996 ft. N, 329 ft. W of SE cor. of NE¼ Sec. 11-9s-8w.
Location.
Union Sulphur Co.'s No. 4 Reeves, 950 ft. W, 290 ft. S of NE cor. of SW¼, NW¼ Sec. 12-9s-8w.
Location.
Union Sulphur Co.'s No. 3 Castle.
T.D. 7,420 ft.; P.B. to sidetrack at 5,180 ft.
Union Sulphur Co.'s No. 7 State, 1,316 ft. N, 199 ft. E of SW cor. Sec. 12-9s-8w.
Location.
Union Sulphur Co.'s No. 8 State, 885 ft. W, 52 ft. N of SE cor. of NE¼ Sec. 1-9s-8w.
Drlg. shale 5,130 ft.
Union Sulphur Co.'s No. 12 State, 2,310 ft. N, 1,850 ft. E of SW cor. of Sec. 12-9s-8w.
Drlg. shale 7,050 ft.
Union Sulphur Co.'s No. 13 State, 1,464 ft. E, 2,088 ft. N of SW cor. of Sec. 12-9s-8w.
Location.

Gueydan—Vermilion Parish

Pure Oil Co.'s No. 6 Alliance Trust, 667 ft. E, 1,787 ft. S line of lease, Sec. 34-11s-1w.
T.D. 9,545 ft.; testing sand showing oil and gas; pressure built up to 2,600 lbs., trying to get circulation.

Hackberry—Cameron Parish

Calcasieu Oil Co.'s No. 41 Watkins, 2,502 ft. S and 2,544 ft. W of NE cor. Sec. 14-12s-10w.
Cored to 3,363 ft., may abandon.
Gulf Refg. Co.'s No. 19 Erwin, 1,315 ft. W along S line of the SE cor. of Sec. and 960 ft. at R/A to S line, Sec. 12-12-10w.
Coring shale 7,030 ft.
Stanolind O. & G. Co.'s No. 14 Gulf Land, Sec. 14-12s-10w.
Drlg. sand and shale 4,313 ft.
Stanolind O. & G. Co.'s No. 15 School Land, Sec. 16-12s-10w.
T.D. 7,632 ft.; P.B. to 3,580 ft.; perforated csg. 3,565-80 ft.; prepare to make drill stem test.
Texas Co.'s No. 13 State, N 13 deg. 20 ft. W, 4,000 ft. from No. 13, Sec. 44-12s-9w.
Location.
Texas Co.'s No. 14 State, 500 ft. SE of No. 13, Sec. 13-12s-10w.
T.D. 5,804 ft.
Yount Lee Oil Co.'s No. 1-A Gulf Land, 2,000 ft. S and 50 ft. E of the NW cor. of Sec. 22-12-10.
Rig up.

New Iberia—Iberia Parish

Harrison & Abercrombie's No. 4 Schwing, Sec. 56-12s-7e.
Drlg. lime rock 5,418 ft.
Heller No. 1 Sabatoir, 900 ft. N and 1,310 ft. E of SE cor. of Sec. 53-12s-7e.
Drlg. salt 3,631 ft.; no report.
Texas Co.'s No. 1-B Hanzen, 1,418 ft. NE along NW line from most W cor., thence SE at right angle, Sec. 54-12s-7e.
Drlg. sandy shale 4,330 ft.

IOWA—Calcasieu and Jeff Davis Parish

Shell Pet. Corp.'s No. 18 Heyd, 1,068 ft. S. 330 ft. W of NE cor. of NW¼ of Sec. 13.
Drlg. sandy shale 5,422 ft.

Jennings—Acadia Parish

Abshire-Bolyard's No. 1 Clemonds, 3,500 ft. N, 95 ft. E of SW cor. Sec. 46.
T.D. 2,037 ft., testing.
Yount Lee Oil Co.'s No. 15 Houssiere-Latriele.
Drlg. anhydrite 5,410 ft.

Lake Hermitage—Plaquemines Parish

Humble O. & R. Co.'s No. 1 State Land, 1,980 ft. E, 200 ft. N of Texas Gulf No. 6, Sec. 11-18s-25e.
Drlg. in sidetracked hole at 2,502 ft.

Lake Felto—Terrebonne Parish

Texas Co.'s No. 14 State, Sec. 4-23s-18e.
Rig up.

Lake Barre—Terrebonne Parish

Texas Co.'s No. 35 Lake Barre, Sec. 40-21s-19e.
Drlg. shale and boulders 2,719 ft.

Leesville—Lafourche Parish

Texas Co.'s No. 25 Leesville.
Derrick.
Texas Co.'s No. 23 Leesville, 975 ft. S, 1,975 ft. W of NW cor. of SW¼ Sec. 26-21-22.
Location.
Texas Co.'s No. 32 Leesville, 890 ft. S, 2,484 ft. W of NE cor. SE¼ Sec. 27-21s-22e.
Rig up.
Texas Co.'s No. 33 Leesville, 1,590 ft. S, 2,484 ft. W of NE cor. SE¼ Sec. 27-21s-22e.
T.D. 4,300 ft.; P.B. and drilled out to 4,295 ft.
Texas Co.'s No. 35 Leesville.
T.D. 3,456 ft.; prepare to test oil sand 3,412-56 ft.; completed, no gauge.

Roanoke—Jefferson Davis Parish

Glassel et al's No. 1-A La. Irrigation Mill Co., Sec. 2-9s-W line.
Sand with gas show 8,677-93 ft.; S.D.
Glassel et al's No. 1 La. Irrigation Mill Co., 695.5 ft. E and 475 ft. N of SW cor. Sec. 1-9s-4w.
Location.
Humble O. & R. Co.'s No. 2 C. N. Taylor, 1,320 ft. E, 440 ft. S of NW cor. of SW¼ Sec. 12-9s-4w.
Drlg. shale 4,005 ft.
Humble O. & R. Co.'s No. 1 Nelson Thomas, 880 ft. W of No. 2 Kratzer, 440 ft. N and W of SE cor. of 200-ac. tract.
T.D. 10,583 ft.; connecting up 7-in. pipe and installing blow-out preventer.
Shell Pet. Corp.'s No. 1 Jarnigan, 330 ft. E, 660 ft. S. NW cor. Sec. 12-9s-4w.
T.D. 10,750 ft.; D.S. stuck.

Sweet Lake—Calcasieu Parish

Pure Oil Co.'s No. 13 Yount Lee, 800 ft. S, 66 deg. 42 ft. E of No. 12, Sec. 13-13-13.
Drlg. shale 1,961 ft.

Sulphur—Calcasieu Parish

Union Sulphur Co.'s No. 813 fee.
Drlg. shale 1,930 ft.
Union Sulphur Co.'s No. 812 fee.
T.D. 4,150 ft.; I.P. 225 bbls. per day.

White Castle—Iberville Parish

Shell Pet. Corp.'s No. 8 Wilbert.
T.D. 6,009 ft.; O.S. cut liner.
Shell Pet. Corp.'s No. 2 Adams, 2,340 ft. N. 100 ft. E of SW cor. of lease.
T.D. 8,911 ft.; pulling screen and liner.

Miscellaneous Wildcats

TEXAS

Austin County

Deering & Kayser's No. 1 McClinton, 1,100 ft. NW line in center NE and SW of 115.5-ac. tract, Thomas Bell Sur.
S.D. 3,560 ft.
R. L. Wheelock et al's No. 1 Nancy Harrigat, 330 ft. each way out of the east cor. of the 78-ac. tract, Benj. Babbitt Sur.
Abandoned 4,525 ft.
T. F. Wood et al's No. 1 Trenchman, 330 ft. from SE line of a 50-ac. tract, James Cummins Sur.
S.D. 750 ft.

Brazoria County

Texas Co.'s No. 1 Freeport Sulphur Co., 2,764 ft. N, 1 deg., 40 ft. W and 1,134 ft. S, 88 deg., 20 ft. W of NW cor. of S. F. Austin Sur., Abst. No. 35, being in the Conception Arcola Sur.
T.D. 4,544 ft.; P.B. to 2,760 ft.; T.D. of sidetracked hole 3,031 ft.

Chambers County

C. B. Bunte's No. 1 Simon, 1,980 ft. WE line, 990 ft. SN line, Sec. 33, T.&N.O. Sur.
Drlg. shale 7,110 ft.
Salt Dome Oil Co.'s No. 1 A. B. Lawrence, James Grant Sur., 2,650 ft. NW of SE line, 6,660 ft. SW of NE line.
Location.

Calhoun County

Continental Oil Co.'s No. 2 American National Realty Co., 660 ft. from NW line, 664 ft. from NE line of Sec. 6, Blk. C. Pedro Garcia Sur.
Milling out of 6-in. csg.; T.D. 7,312 ft.

Colorado County

Clyde Creighton et al's No. 1 Witte, 150 ft. S and E of most westerly NW cor. of H. White Sur.
10-in. csg. 341 ft.; T.D. 352 ft.
Coyle & Concord's No. 1 fee, 550 ft. from N line, 1,950 ft. from E line of Sec. 45, I.&G.N. Sur.
10¾-in. csg. 610 ft.; T.D. 698 ft.

Fort Bend County

Thompson Drlg. Co.'s No. 1 T. A. Brown, 150 ft. from W line, 150 ft. from S line of 100.8-ac. lease, George Menefee Sur.
10¾-in. csg. 610 ft.; drlg. plug.

Grimes County

Dr. Marshall et al's No. 1-B Todd, 300 ft. from E line and 175 ft. from N line of 150-ac. tract in extreme NW cor. of county (25 ft. N of No. 1).
7-in. csg. 2,678 ft.; T.D. 2,815 ft.; could not bail fluid down in csg.; S.D.

Harris County

E. E. Young, tr.'s No. 2 P. S. Griffith, 3,476 ft. S of N line, 2,030 ft. E of W line of A. R. Bodman Sur.
Drlg. shale 3,257 ft.

Hardin County

Frank Beaudoin et al's No. 1 Walton, A. L. Lancaster Sur.
Drlg. shale 1,650 ft.

Jefferson County

Sun Oil Co.'s No. 1 Herbert & Broussard, 6,890 ft. NW along SW line and 660 ft. NE at R/A to SW line, B. Blackman Sur., Abst. No. 2.
Drlg. shale 7,756 ft.

Lavaca County

Wheelock & Collins' No. 1 A. Pohl, 1,000 ft. N, 20 deg. out of SW cor. of F. Baass Sur., thence 400 ft. S, 70 deg. W, M. Wooten Sur.
Coring shale 4,640 ft.

Liberty County

A. L. Maxwell's No. 1 M. P. Hinchliff, 200 ft. from E line and 1,000 ft. from N line of H.&T.C. Sur., Sec. 10a.
T.D. 5,588 ft.; cmtd. back to 5,494 ft.; twisted off D.S. at 2,900 ft.; plugging back.

Matagorda County

Continental Oil Co.'s No. 1 Feife, J. S. Criswell Sur., 3,000 ft. E of W line, 2,800 ft. N of S line of survey.
T.D. 6,073 ft.; shale; rigging up to deepen.
Helmerich & Payne's No. 1 Hawkins, 850 ft. S, 70 deg. W of Cockburn Oil Co.'s No. 6 Hawkins.
Sidetracking 5,250 ft.
Horace M. Smith, Inc.'s No. 1 Wadsworth ranch, 150 ft. out of S cor. of Lot No. 5, S. R. Fisher Sur.
Drlg. shale 8,527 ft.
Sterling O. & R. Co.'s No. 1 Baer Estate, 5,274 ft. SW of S cor. of Van Dorn and Bales Sur., 400 ft. NW at right angles in Samuel Hart Sur.
Prepare to spud.

Montgomery County

W. L. Belraski's No. 1 T. S. Foster, 1,282 ft. N of S line, 754 ft. E of W line of Blk. 45, J. M. De La Garza Sur.
Coring 3,784 ft.
Wm. Thompson's No. 1 J. V. Scott, 530 ft. NW of Woodward-Smith and Cooper's No. 1 J. V. Scott, Frances Wheeler Sur.
Drlg. shale 1,527 ft., no report.
Turnbull & Irwin's No. 1 Carr, 330 ft. out of NE cor. of S 50 acres of W 100 acres of 200-ac. tract in Caddo-Allen Sur.
Rig up.
Mid-Texas Oil Co.'s No. 1 Delta Land & Timber Co., 560 varas from W line, 200 varas from S line of Robert F. Oliver Sur.
S.D. 3,545 ft.
George C. Schmidt's No. 1 Delta Land & Timber Co., 2,300 ft. N, 1,100 ft. E of SW cor. of tract, Wm. McBride Sur.
Drlg. shale 4,110 ft.

Orange County

Blue Line Oil Co.'s No. 1 J. E. Peet Richard, 900 ft. W of E line and 150 ft. S of N line of most easterly NE cor. of 138-ac. tract, Bailey Sur.
Rig up.
Coker Oil Co.'s No. 1 S. T. Mansfield, 500 ft. S, 500 ft. W from NE cor. of 80-ac. tract, J. W. Hall Sur.
964 ft.; no report.

Refugio County

Cecil Hagen et al's No. 1 Edith Clarkson, 1,736 ft. from N line, 2,820 ft. from E line of J. Coughlin Sur.
Location.

Trinity County

P. C. Bundy's No. 1 Thompson Bros., 2,340 ft. N, 700 ft. E of SW cor. of J. Ceballos Sur.
8¼-in. at 20 ft.; drlg. shale 310 ft.
Gulf Prod. Co.'s No. 5 Trinity County Lbr. Co., 1,017 ft. S of NE cor. of H. Y. Rook Sur., 444 ft. EW line, O. Peterson Sur.
Junked hole; skidded derrick 12 ft. N; drlg. shale 2,630 ft.

Victoria County

Texas Co.'s No. 1 J. J. Warden, 4,200 ft. N, 55 deg. E and 486 ft. N, 35 deg. W from SW cor. of Warden ranch, Edward McDonough League.
Drlg. shale 5,629 ft., made test.

Washington County

C. J. Laas' No. 1 T. Weinert, 1,840 ft. SW from E cor. of survey, thence 350 ft. NW at R/A, T. P. Borden Sur.
S.D. 2,774 ft., contract depth.

Wharton County

Navarro Oil Co.'s No. 1 Schoellman, 330 ft. S of S and E lines, 1,238 ft. from W line of Nasario Mansha Sur.
Drlg. shale 6,478 ft.
Pure Oil Co.'s No. 1 Paige, 1,397 ft. NE and 467 ft. SE from W cor. of 159.27-ac. lease, James Pirie Sur.
T.D. 116 ft.; 18⅝-in. csg. at 101 ft.
Sterling Oil & Ref. Co.'s No. 1 Frank Janik Sr., 1,859 ft. from N line, 467 ft. W from SE cor. of Janik tract, Johathan Scott Sur.
Drlg. shale 7,963 ft.

SOUTH LOUISIANA

Avoyelles Parish

Southern Star Pet. Co.'s No. 1 Boyette, Sec. 28-3S-5w.
Abandoned 4,510 ft.

Beauregard Parish

Richardson & Martin's No. 1 Southwest Lbr. Co.
Location.

Calcasieu Parish

Fred Oil Co.'s No. 2 Faist, 262 ft. E and 8 ft. S of NW cor. SE¼ Sec. 26-8s-10w.
S.D. 3,910 ft.
Nicholas McCaleb's No. 1 Grey, 2,200 ft. S, 1,200 ft. E of NW cor. Sec. 22-8s-13w.
S.D.1,565 ft.
Union Sulphur Co.'s No. 1 Prairie Land & Canal Co., 1,312 ft. S, 610 ft. W of NE cor. of Sec. 1-11s-9w.
Drlg. shale 8,700 ft.
Wheeler Oil Corp.'s No. 1 School Lot, 1,708 ft. E, 1,325 ft. N of SW cor. Sec. 16-9s-7w.
Drlg. shale and lime 6,200 ft. (corrected)

Cameron Parish

Magnolia Pet. Co.'s No. 1 J. B. Broussard, 330 ft. E and S, out of NW cor. of the SW¼ of SE¼ of Sec. 13-12s-9w.
T.D. 7,890 ft.; stuck drill stem second time; fishing; set whipstock 7,481 ft.
Steinberger Pet. Co.'s No. 1 Drew, 330 ft. out of NW cor. NE¼ of Sec. 26-10s-11w.
Location.

East Baton Rouge Parish

Superior Oil & Prod. Co.'s No. 1 Duplanter-Community, 1,500 ft. westerly along the N line from the NE cor. of D. A. and E. A. Duplanter's 130.7-ac. tract, thence 330 ft. at R/A.
Drlg. shale 8,630 ft.

Evangeline Parish

J. E. Ladue's No. 4 Vidrien, Sec. 34-3-2.
Rig up and S.D.

East Feliciana Parish

Thompson Creek Oil Co.'s No. 1 Fannie Noland, 2,400 ft. E and 1,580 ft. N of SW cor. Sec. 70.
S.D. 1,589 ft.

Iberia Parish

Jefferson Lake Oil Co.'s No. 1 State, Twp. 12s-5e.
T.D. 6,160 ft.; 9⅝-in. cmtd. on bottom. W.O.C.
Little Pigeon Oil Co.'s No. 1 McHugh, 1,300 ft. S, 229 ft. W of NE cor. Sec. 26-12s-10e.
S.D. 3,165 ft.
Meade Oil Co.'s No. 1 Hamilton, near town of Loze, in the NW cor. of parish, Sec. 38-12-5.
S.D. 200 ft.
Texas Co.'s No. 1 State Fausse Point.
T.D. 6,370 ft.; 9⅝-in. csg. 6,370 ft.
J. S. Watterman's No. 1 St. Julian, 75 ft. E of W line of property and 50 ft. N of Lake Poigneur, Sec. 4-12s-5e.
Abd. 1,570 ft.

Jefferson Davis Parish

Howard Naylor et al's No. 1 Johnson-Bordeaux, 1,734 ft. N, 52 deg. N, 45 min. E, and 1,853 ft. S, 37 deg. 15 min. E out of SW cor. Sec. 39-10s-3w.
S.D. 810 ft.
Shell Pet. Corp.'s No. 1 Lacassan, 990 ft. N, 1,980 ft. E of SW cor. of Sec. 20-11s, 5w.
Moving in rig.

LaFourche Parish

Coastal Oil Co.'s No. 2 Constantine, 1,476 ft. N, 809 ft. E of SW cor. Sec. 26-21-22e.
Location.

St. Bernard Parish

Emerald Pet. Corp.'s "Shell Beach Properties" No. 1, on S edge of Bayou Louis, Sec. 31-12s-15e.
T.D. 7,385 ft.; stuck drill stem; P.B. to 1,200 ft.; to sidetrack.

St. Martin Parish

Texas Co.'s No. 1 State Lake, 5,180 ft. E. 350 ft. N of SW cor. of Sec. 10-10s-9e.
Rig up.
Texas Co.'s No. 7 St. Martin Land, 2,042 ft. N, 500 ft. W of SE cor. of Sec. 17-8s-7e.
Drlg. shale and lime 8,916 ft.
Tide Water Oil Co.'s No. 1 Smedes, 990 ft. from N and E lines of 1,000-ac. tract, Sec. 57-11e-6w.
Bldg. derrick.

Plaquemines Parish

Lo-Tex Expltn. Co.'s No. 1 Hero Plantation, Sec. 72-14s-24e.
T.D. 3,445 ft.; sand and shells; mixing mud.
Southern Sulphur Co.'s No. 1 Manhattan Fruit Co.
Drlg. shale and lime 2,330 ft.

Rapides Parish

Amerada Pet. Corp.'s No. 1 Wells Land Co., 490 ft. from W line, 2,450 ft. from S line of Sec. 53-1s-2e.
Drlg. bluish green shale 2,590 ft.

Vermilion Parish

Delcambre & Shelton's No. 1 Adam Delcambre, south degrees E, 825 ft. from most northerly cor. of irregular Sec. 63-17-5.
S.D. 1,471 ft.

Terrebonne Parish

Dulac Oil Co.'s No. 1 Bourg, Sec. 10-20-17e.
Drlg. sandy shale 3,649 ft.

E. C. TEXAS WILDCATS

Week Ending September 14

Camp Hill Area—Anderson County

Gulf's No. 3 Davey & Royall, James Squires Sur., 330 ft. N along E line of H. Main Sur., F.S.E.C., and 330 ft. E at R/A, E offset Southern Pine Lbr. Co.'s No. 1-A, 330 ft. N along E line, H. Main Sur. and 330 ft. at right angle.
Elev. 573 ft.; Top Austin 4,908 ft.; coring 5,136 ft.
Gulf's No. 1 E. T. McCain, Phillip Martin Sur., 500 ft. S of N line and 200 ft. W of E line of tract, on 80.17-ac. tract
Elev. 575 ft.; Pecan Gap 3,900-4,140 ft.; drlg. 4,410 ft.

Cayuga Area—Anderson County

Tide Water Oil Co. et al's No. 21-A Willa 4,679 ft. N and 2,333 ft. W of lease, S Edmondson Sur. (Trinity test).
Drlg. 9,030 ft.

Long Lake Area—Anderson County

Tide Water and Texas Seaboard Oil Co.'s No. 3 Goode, 2,500 ft. from most northerly N line and 2,200 ft. from most easterly E line of F. Smith Sur.
Drlg. 4,300 ft.

Tide Water and Texas Seaboard Oil Co.'s No. 1 H. B. Keeling, 1,408 ft. from S line and 126 ft. from E line, Simon Sanchez Sur., one-half mile E of Tucker.
Elev. 304 ft.; Austin 4,693-4,921 ft.; coring 5,345 ft.

Tide Water-Seaboard's No. 2 Shaw & Cern, S. Sanchez Sur., 3,266 ft. E line and 2,333 ft. S line of 1,216-ac. tract, or 935 ft. N and 932 ft. W of No. 1 Shaw & Cern.
Derrick.

Angelina County

Burnham et al's No. 1 Norton Properties, 700 ft. NW cor. and 600 ft. from E of W. M. Johnson Sur., 8 miles SW of Zavala in SE part of county.
T.D. 40 ft.; S.D.

C. L. Duprey's No. 1 Carter Lbr. Co., 350 ft. from S and 200 ft. from E line of 50-ac. tract in H.T.&B. Sur., 6 miles S of Huntington.
Drlg. 100 ft.

Y. D. Spell's No. 1 B. F. Thompson, J. R. Williams Sur., 150 ft. out SW cor. of tract and survey, 2½ miles N Lee-Tex's No. 1 Guissler.
T.D. 2,471 ft.; S.D.W.O.

Bowie County

Tex-Ark. Oil Co.'s No. 1 Hamilton Estate, 600 ft E and 350 ft. N lines, J. Milan Sur., 4 miles S of Red River.
S.D. 1,121 ft.

Woodley & Bentley's No. 1 Lumpkin, 330 ft. out of NE cor. of 245-ac. tract, J. McDermot Sur., 1 mile SW of Dalby Springs.
S.D. 120 ft.

Cherokee County

Wilson Stubbs Oil Co.'s No. 1 Rowborts, 450 ft. from S line, 150 ft. from W line of 100-ac. tract, 2 miles SW of Jacksonville, J. D. Wolfin Sur.
S.D. 1,553 ft.

Collin County

Port Bolivar O. & R. Co.'s No. 1-A Dunning, 24 ft. W of No. 1, Wm. Creager Sur., 2 miles SE of Van Alystin.
Derrick.

Port Bolivar O. & R. Co.'s No. 1 J. Shirley, 330 ft. N and W of 310-ac. tract, J. Sorrell Sur., 4 miles SE of Anna.
Drlg. 1,700 ft.

Ellis County

Beasley O. & G. Co.'s Inc.'s No. 1 E. Roller, 1,000 ft. NW of Ringaso Irrigation Co., 2½ miles NE of Ennis.
S.D. 160 ft.

Falls County

Bell & Hays' No. 1 Taylor, 155 ft. from N and 465 ft. from E of 20-ac. tract, J. A. Manchaca Sur., Chilton area.
Drlg. 910 ft.

Fannin County

B. F. Allen's No. 1-B Argo, center of 16½-ac. tract in J. G. Swisher Sur., 1 mile S of Ector.
Drlg. 760 ft.

Warner Moore et al's No. 1 Hancock, 400 ft. from W and 150 ft. N lines, Sec. 16, L. M. Baldock Sur., ½ mile S of Trenton.
Top sand 645 ft., 250 ft. oil in hole, 38 gravity, S.D. 657 ft.

Freestone County

J. E. Milburn's No. 1 S. E. McShan, 4,000 ft. NW and 5,000 ft. NE of tract, 3 miles SE of Donie, G. Diaz Sur.
Drlg. 270 ft.

Stewart & Watson's No. 1 S. A. Burleson (Ball), 466 ft. from E and W at right angles from NE cor. of A. Wade 75 (63.6) acre tract.
Pecan 3,243-3,393 ft., drlg. 3,710 ft.

Grayson County

Olson Drlg. Co.'s No. 1 Southwestern Life Ins. Co., center of 160-ac. tract and J. C. Jamison Sur., 6 miles NW of Denison.
Derrick.

Port Bolivar O. & R. Co.'s No. 1 C. Taylor, 330 ft. S. and W. of 1,543-ac. tract, Fitzhugh Sur., 2¼ miles SE of Gunter.
Derrick.

Gregg County

L. P. Kean's No. 1 S. M. Smith, 1,000 ft. E and 1,250 ft. S of W. W. Avery Sur., 4 miles SE of Gladewater.
Drlg. 3,426 ft.

Henderson County

Kirby Pet. Co.'s No. 1 C. L. Litchfield, 600 ft. N and 350 ft. W, I. Clendennen Sur.
Derrick.

Roeser & Pendleton's No. 1 Litchfield, 315 ft. from S and 467 ft. from W, T. J. Lindsey Sur.
Base Austin 3,605 ft., drlg. 4,110 ft.

H. M. Wilson's No. 1 fee, 970 varas S of NE cor. of 943-ac. tract, 5 miles N of Malakoff.
Derrick.

Hopkins County

D. A. Hale et al's No. 1 L. M. Hall, 200 ft. from N and E lines of 70-ac. tract, 1 mile SE of Miller Bros. A. Caro Sur.
S.D. 2,950 ft.

Hunt County

J. F. Morrissey & Co., Inc.'s No. 1 Fry, 543 ft. from N and 200 ft. from E of 146-ac. tract, 7 miles N of Commerce, C. Davis Sur.
T.D. 4,407 ft.; fishing.

Kaufman County

Germany et al's No. 1 Clark, 951 ft. N and 1,000 ft. W of tract, S. Eden Sur.
T.D. 1,780 ft.

Murry & Emerson's No. 1 G. W. Martin, 1,660 ft. from W and 250 ft. from N of 140-ac. tract, from W. L. C. Butler Sur., 2 miles NE of Kemp.
S.D. 1,784 ft.

Lamar County

Gulf Petroleum Co.'s No. 1 A. L. Darnell, 1,490 varas from S and 1,080 varas from W line of H. L. Williams Sur., 4 miles NE of Paris.
Reaming 1,824 ft.

North Texas Synd., Eric T. Bradley, tr.'s No. 1 Wright, Alfred Moore Sur., 250 ft. from W and 650 ft. from S line, 11 miles NW of Paris.
Derrick.

Leon County

Tide Water-Seaboard's No. 1 A. W. Johnson, located in S. Sanchez No. 7, 1,500 ft. E and 1,200 ft. N of most westerly SW cor. 425-ac. lease.
T.D. 2,125 ft., set csg.

Limestone County

J. Edward Mills' No. 1 Hunt, 200 ft. from N, 350 ft. from W line 34.75-ac. tract, Israel Wood Sur., 3 miles NE of Kosse.
S.D. 3,802 ft.

Doughtry et al's No. 1 S. Welch, 150 ft. from NW and 900 ft. from NE of 77.64-acre tract in A. Varilia Sur., 4 miles W of Groesbeck.
T.D. 3,121 ft.; bailing S.W.; small show gas.

McLennan County

T. Cunningham's No. 1 M. G. McKee, 940 ft. from S and 2,640 ft. W of 640-ac. tract, M. Snell Survey, near Bruceville. Location.

Riley & Barrow's No. 1 Hortsman, V. C. Walters Sur., 500 ft. from most northerly N line, 500 ft. from most westerly E line, 500-ac. tract, 1½ miles S McGregor.
Drlg. 310 ft.

Nacogdoches County

Rosser Bros. & Jackson's No. 1 Mattby, 330 ft. out of NE cor. 60-ac. tract, Pedro J. Esparza Sur., 5 miles S of Nacogdoches.
Drlg. 612 ft.

Navarro County

McCullough et al's No. 1 C. Berry, 330 ft. from SE cor. of 25-ac. tract, 1 mile W of Dawson, William Moss Sur.
S.D. 1,500 ft.

E. M. Thomason's No. 1 T. P. Shivers, 1,500 ft. from W. and 600 ft. N. of 69-ac. tract, W. R. Bowen Sur., 2 miles S. of Corsicana.
Drlg. 1,025 ft.

Wiggins et al's No. 1 Donoho, 450 ft. from N and 1,101 ft. from E lines in John Couple Sur., SW of Corsicana.
T.D. 1,439 ft.

Rains County

Allen & McClung's No. 1 Giles, T. Cunningham Sur., Abst. 143, 330 ft. from W line and 200 ft. from N line of 105-ac. Giles tract, 5 mi. SW of Emory.
Derrick.

Allen & McClung's No. 1 Ida Bullard, N. Brantely Sur., 1,300 ft. from W line and 200 ft. from N line of 25-ac. tract, 2 mi. SW of Emory.
Derrick.

Allen & McClung & Collard's No. 1 S. P. Cain, 1,350 ft. N and 1,550 ft. W line of J. Harges Sur., 1 mile NW of Emory.
Location.

Red River County

Joe Dinger et al's No. 2 Morris, John Guest Sur., approx. 175 ft. NW of No. 1 Morris, 1 mile S Detroit.
Rigging up.

R. H. Chew et al's No. 1 J. F. Brooks, 900 ft. N and 600 ft. of W line of 320-ac. tract, B. Gooch Sur., ¼ mile S of Bagswell.
Derrick.

Joiner's No. 1 D. Rust, C. C. Wilborn Sur., 234 ft. N and 254 ft. W of most southerly SE cor. of Sur., just south of Avery.
Derrick.

Rockwall County

Dodd et al's No. 1 M. F. Lofland, 330 ft. out of NW cor. 392-ac. tract, W. H. Beird Sur., 2½ miles SE of Rockwall.
Derrick.

Rusk County

J. W. Shipman et al's No. 1 Citizens Natl. Bank, NE cor. of 125-ac. tract, J. J. Y'Barbo Sur., 4 miles NE of Henderson.
Approx. T.D. 2,500 ft. in shale; S.D. to Drlg. 3,225 ft.

Titus County

S. Rotondi's No. 1 Lillianstun, 1,200 ft. E from NW cor. of J. Bodt Sur. and 330 ft. N, but in W. H. Crawford Sur., 5 miles NE of Talco.
Elev. 301 ft.; derrick.

Van Zandt County

J. Beren et al's No. 1 Bryant, 483 ft. N of same operator's dry hole, Nacogdoches County School Land Sur.
S.D. 1,325 ft.

Beren et al's No. 2 Palmer, 544 ft. from S and 686 ft. from E of 69.5-ac. tract, Nacogdoches County School Land.
S.D. 1,451 ft.

Wood County

Hollandsworth Drlg. Co.'s No. 1 Little Sandy Hunting & Fishing Club, 400 ft. from N and 3,500 ft. E of James Hamblin Sur., 12 miles SE of Mineola.
S.D. 5,084 ft.

CALIFORNIA WILDCATS

IMPORTANT NORTHERN CALIFORNIA WILDCATS

Company, well and location—	S. T. R.	Depth	Status—
Shell Oil Co., No. 6 Capitan, Santa Barbara Co.	5- 4-30	1,265	rig to pump
Shell Oil Co., No. 7 Capitan, Santa Barbara Co.	5- 4-30	795	sd. sh. drlg.
Shell Oil Co., No. 8 Capitan, Santa Barbara Co.	5- 4-30	1,820	sd. sh. drlg.
Shell Oil Co., No. 9 Capitan, Santa Barbara Co.	5- 4-30	....	rig, suspended
General Petroleum, No. 15 Capitan, Santa Barbara Co.	32- 5-30	222	suspended
Shell Oil Co., No. 1 Goleta, Santa Barbara Co.	10- 4-29	2,977	P.B. 1,036 ft.
Honolulu Oil Corp., No. 9 Elwood, Santa Barbara Co.	tideland	3,565	rd. sd. drlg.
Barnsdall-Rio Grande, No. 12 Elwood, Santa Barbara	tideland	6,340	rd. sd. drlg.
Barnsdall-Rio Grande, No. 18 Elwood, Santa Barbara	tideland	3,500	hd. sd. drlg.
Barnsdall-Rio Grande, No. 2 Elwood, Santa Barbara	15- 4-29	6,492	P.B. 3,957 ft.
Bankline Oil Co., No. 10 Elwood, Santa Barbara Co.	tideland	3,825	redrlg. 1,370
Spalding, Caroline, No. 11 Elwood, Santa Barbara Co.	tideland	1,081	sd. sh. drlg.
Signal Oil & Gas Co., No. 5 Elwood, Santa Barbara	tideland	3,097	sd. sh. drlg.
Pacific Western, No. 16 Elwood, Santa Barbara Co.	tideland	....	bldg. rig
Union Oil Co., No. 4 Santa Maria, Santa Barbara Co.	16-10-34	1,361	sd. sh. drlg.
Freeman, M. J., No. 1 Purisima, Santa Barbara Co.	11- 7-33	1,276	br. sh. drlg.
Las Posas Pet., No. 1 Las Posas, Ventura Co.	22- 3-20	8,116	cleaning out
Union Oil Co., No. 1 Bardsdale, Ventura Co.	12- 3-20	4,084	sd. sh. drlg.
Monticello Oil Co., No. 1 Bardsdale, Ventura Co.	12- 3-20	3,217	fish. D.P.
The Texas Co., No. 1 Fillmore, Ventura Co.	29- 4-19	2,862	hd. sd. drlg.
Bankline Oil Co., No. 1 South Mountain, Ventura Co.	3- 3-19	1,204	cmtd. 1,160
The Texas Oil Co., No. 1 South Mountain, Ventura Co.	4- 3-19	7,423	P.B. 4,296
Hull, James, No. 1 Susana, Ventura Co.	2- 2-18	586	hd. sd. drlg.
Ventura Expl. Co., No. 1 Saticoy, Ventura Co.	30- 3-22	5,350	hd. sd. drlg.
Prop. Service Corp., No. 1 Lloyd, Ventura Co.	24- 3-22	9,075	gr. sd. drlg.
General Pet., No. 1 Oxnard, Ventura Co.	26- 2-23	6,253	sd. sh. drlg.
Continental Oil Co., No. 4 San Miguelito, Ventura Co.	23- 3-24	6,864	O.S. drlg.
C. C. M. Oil Co., No. 1 San Miguelito, Ventura Co.	23- 3-24	10,030	redrlg. 7,931
Standard Oil Co., No. 1 Lost Hills, Kern Co.	2-26-20	5,842	D.P. stuck
Cumberland Oil Co., No. 1 Devil's Den, Kern Co.	17-26-18	3,263	cleaning out
Continental Oil Co., No. 2 McDonald, Kern Co.	18-28-20	1,783	dry, abd.
Belmac Drlg. Co., No. 1 McKittrick, Kern Co.	22-29-21	3,668	cmtd. fish
Big McKittrick Oil Co., No. 1 McKittrick, Kern Co.	30-30-22	622	suspended
General Pet. Co., No. 1 South Belridge, Kern Co.	36-28-21	11,377	suspended
Standard Oil Co., No. 2-A North Belridge, Kern Co.	36-27-20	8,501	flow. 6,232 b.d.
Standard Oil Co., No. 3 North Belridge, Kern Co.	36-27-20	5,391	sd. sh. drlg.
Belridge Oil Co., No. 32-35 North Belridge, Kern Co.	35-27-20	7,998	br. sh. drlg.
Belridge Oil Co., No. 33-35 North Belridge, Kern Co.	35-27-20	7,863	br. sh. drlg.
Continental Oil Co., No. 6 North Belridge, Kern Co.	36-27-20	5,761	br. sh. drlg.
Union Oil Co., No. 19 North Belridge, Kern Co.	36-27-20	7,130	br. sh. drlg.
Union Oil Co., No. 20 North Belridge, Kern Co.	36-27-20	7,060	br. sh. drlg.
Ohio Oil Co., No. 1 Maricopa Flats, Kern Co.	11-11-22	3,552	sd. sh. drlg.
Woods & Bailey, No. 1 McFarland, Kern Co.	16-26-26	800	cleaning out
Republic Pet. Co., No. 1 McFarland, Kern Co.	20-26-27	2,405	suspended
Standard Oil Co., No. 1 Delano, Kern Co.	1-25-23	2,455	gas, shut in
Standard Oil Co., No. 2 Delano, Kern Co.	1-25-23	3,256	gas, shut in
Standard Oil Co., No. 4 Delano, Kern Co.	34-24-23	2,460	gas, shut in
Standard Oil Co., No. 5 Delano, Tulare Co.	33-24-23	....	rig, suspended
Trico Oil & Gas Co., No. 1 Delano, Kern Co.	3-25-23	2,525	gas well
Trico Oil & Gas Co., No. 3 Delano, Kern Co.	36-24-22	4,835	suspended
Trico Oil & Gas Co., No. 5 Delano, Kern Co.	3-25-23	2,467	gas well
Richardson & Heaston, No. 1 Kern Front, Kern Co.	5-28-28	231	sd. drlg.
National Oil Co., No. 1 Kern Front, Kern Co.	11-28-27	....	rigged up
Kern River Oilfields, No. 5 Kern Front, Kern Co.	25-28-27	....	rigging up
Associated Oil Co., No. 4 Kern Front, Kern Co.	4-28-27	2,580	cmtd. 2,478 ft.
Associated Oil Co., No. 5 Kern Front, Kern Co.	4-28-27	....	bldg. rig
C. C. M. Oil Co., No. 6 Kern Front, Kern Co.	23-28-27	1,899	cmtd. 1,817 ft.
Bishop Oil Co., No. 2 Kern Front, Kern Co.	26-28-27	....	bldg. rig
Republic Petroleum, No. 5 Kern Front, Kern Co.	24-28-27	1,965	cmtd. 1,830 ft.
Standard Oil Co., No. 3 Kern Front, Kern Co.	5-28-27	2,610	cleaning out
Barnsdall Oil Co., No. 4 Mountain View, Kern Co.	32-30-29	5,801	flow. 3,400 b.d.
Barnsdall Oil Co., No. 5 Mountain View, Kern Co.	32-30-29	....	rigging up
Canal Oil Co., No. 1 Mountain View, Kern Co.	30-30-29	5,230	sd. sh. drlg.
C. C. M. Oil Co., No. 1 Mountain View, Kern o.	11-30-28	6,606	P.B. 5,370 ft.
Hogan Pet. Co., No. 6 Mountain View, Kern Co.	29-30-29	3,191	sd. sh. drlg.
Hogan Pet. Co., No. 7 Mountain View, Kern Co.	4-31-29	....	bldg. rig
Hogan, Dana, No. 1 Mountain View, Kern Co.	32-30-29	5,443	P.B. 5,050
Union Oil Co., No. 8 Mountain View, Kern Co.	23-30-28	7,627	P.B. 5,452 ft.
National Oil Co., No. 1 Mountain View, Kern Co.	30-30-29	3,751	sd. sh. drlg.
Mohawk Oil Co., No. 12 Mountain View, Kern Co.	30-30-29	5,918	completing
Mohawk Oil Co., No. 13 Mountain View, Kern Co.	30-30-29	3,361	sd. sh. drlg.
Mohawk Oil Co., No. 14 Mountain View, Kern Co.	30-30-29	....	rigging up
Shell Oil Co., No. 3 Mountain View, Kern Co.	32-30-29	5,795	sd. sh. drlg.
Shell Oil Co., No. 4 Mountain View, Kern Co.	32-30-29	5,157	sd. sh. drlg.
Standard Oil Co., No. 10 Mountain View, Kern Co.	23-30-28	5,435	flow. 1,718 b.d.
Standard Oil Co., No. 11 Mountain View, Kern Co.	13-30-28	5,300	cmtd. 5,065 ft.
Standard Oil Co., No. 12 Mountain View, Kern Co.	24-30-28	....	rig, suspended
Standard Oil Co., No. 13 Mountain View, Kern Co.	23-30-28	2,391	sd. sh. drlg.
Wood-Callahan Oil Co., No. 1 Mpuntain View, Kern	25-30-28	6,053	cmtd. 5,540 ft.
Mountain View Oil Co., No. 1 Mountain View, Kern	25-30-28	5,650	redrlg. 5,265
United Expl. Co., No. 1 Bakersfield, Kern Co.	23-30-27	3,754	suspended
Jergins Trust, No. 10 Edison, Kern Co.	13-30-29	171	sd. drlg.
Shell Oil Co., No. 9 Edison, Kern Co.	16-30-29	3,101	cmtd. 2,926 ft.
Monterey Expl. Co., No. 8 Edison, Kern Co.	14-30-29	2,168	suspended
Gilbert, R. K., No. 1 Edison, Kern Co.	31-29-30	381	sd. sh. drlg.
Rogers & Osborne, No. 1 Edison, Kern Co.	19-30-30	91	sd. drlg.
Sunday, G. M., No. 1 Edison, Kern Co.	5-30-30	501	suspended
Crandall, Roy, No. 1 Edison, Kern Co.	18-30-30	....	bldg. rig
Union Oil Co., No. 1 Edison, Kern Co.	13-30-29	1,234	rig to pump
Union Oil Co., No. 2 Edison, Kern Co.	13-30-29	971	sd. sh. drlg.
General Pet., No. 7 Edison, Kern Co.	14-30-29	2,785	sd. sh. drlg.
General Pet., No. 8 Edison, Kern Co.	24-30-29	....	rig, suspended
General Pet., No. 9 Edison, Kern Co.	24-30-29	....	bldg. rig
Appling, C. E., No. 1 Edison, Kern Co.	4-30-29	3,625	pump. 30 b.d.
Berry Oil Co., No. 1 Edison, Kern Co.	10-30-29	1,955	pump. 140 b.d.
Bauer, J. H., No. 1 Edison, Kern Co.	21-30-29	....	rig, suspended
Seeple, J. O., No. 1 Elk Hills, Kern Co.	5-30-24	5,141	sd. sh. drlg.
General Pet., No. 1 Arvin, Kern Co.	1-32-29	7,798	gr. sd. drlg.
Hall-Baker Co., No. 1 Arvin, Kern Co.	16-31-30	1,276	suspended
Hall-Baker Co., No. 3 Arvin, Kern Co.	21-31-30	1,916	cleaning out
Hutcheson & Osborne, No. 2 Arvin, Kern Co.	32-30-30	....	rigging up
Arlington Prop. Corp., No. 1 Buttonwillow, Kern Co.	6-28-23	3,235	gas, shut in
Milham Exploration Co., No. 5 Buttonwillow, Kern Co.	5-28-23	2,716	will dpn.
The Texas Co., No. 1 Buttonwillow, Kern Co.	6-28-23	2,435	gas, shut in
The Texas Co., No. 2 Buttonwillow, Kern Co.	8-28-23	....	rigging up
Superior Oil Co., No. 1 Semi-Tropic, Kern Co.	23-27-23	2,418	gas, shut in
Superior Oil Co., No. 2 Semi-Tropic, Kern Co.	34-27-24	2,375	sd. sh. drlg.
Fullerton Oil Co., No. 1 Semi-Tropic, Kern Co.	1-27-22	2,391	gas, shut in
Fullerton Oil Co., No. 2 Semi-Tropic, Kern Co.	14-27-23	2,463	gas, shut in
Fullerton Oil Co., No. 3 Semi-Tropic, Kern Co.	9-27-23	3,150	gas, shut in
Fullerton Oil Co., No. 4 Semi-Tropic, Kern Co.	26-27-23	2,395	gas, shut in
Fullerton Oil Co., No. 5 Semi-Tropic, Kern Co.	8-27-23	2,347	gas, shut in
Fullerton Oil Co., No. 6 Semi-Tropic, Kern Co.	25-27-23	2,441	gas, shut in
Fullerton Oil Co., No. 7 Semi-Tropic, Kern Co.	25-27-23	2,437	producing gas
Fullerton Oil Co., No. 8 Semi-Tropic, Kern Co.	25-27-23	....	grade
Fullerton Oil Co., No. 9 Semi-Tropic, Kern Co.	26-27-23	2,431	producing gas
Fullerton Oil Co., No. 10 Semi-Tropic, Kern Co.	15-27-23	2,414	producing gas
Fullerton Oil Co., No. 11 Semi-Tropic, Kern Co.	14-27-23	4,312	dry, abd.
Fullerton Oil Co., No. 12 Semi-Tropic, Kern Co.	22-27-23	....	rigging up
Standard Oil Co., No. 1 Semi-Tropic, Kern Co.	8-27-23	3,200	producing gas
Standard Oil Co., No. 2 Semi-Tropic, Kern Co.	5-27-23	4,953	bl. sd. drlg.
Standard Oil Co., No. 3 Semi-Tropic, Kern Co.	7-27-23	2,355	producing gas
Standard Oil Co., No. 4 Semi-Tropic, Kern Co.	9-27-23	4,065	sd. sh. drlg.
Standard Oil Co., No. 5 Semi-Tropic, Kern Co.	9-27-23	4,250	suspended
Standard Oil Co., No. 6 Semi-Tropic, Kern Co.	8-27-23	2,361	producing gas
Standard Oil Co., No. 7 Semi-Tropic, Kern Co.	1-27-22	3,982	sd. sh. drlg.
Standard Oil Co., No. 8 Semi-Tropic, Kern Co.	12-27-22	2,426	producing gas
Standard Oil Co., No. 9 Semi-Tropic, Kern Co.	1-27-23	....	bldg. rig
Standard Oil Co., No. 10 Semi-Tropic, Kern Co.	17-27-23	3,930	sd. sh. drlg.
Standard Oil Co., No. 11 Semi-Tropic, Kern Co.	20-27-24	....	rig, suspended
Standard Oil Co., No. 12 Semi-Tropic, Kern Co.	30-27-24	2,630	sd. sh. drlg.
Standard Oil Co., No. 13 Semi-Tropic, Kern Co.	6-27-23	....	rigging up
Standard Oil Co., No. 14 Semi-Tropic, Kern Co.	36-27-23	....	rigging up

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Standard Oil Co., No. 15 Semi-Tropic, Kern Co.	16-27-23	....	location
Milham Expl. Co., No. 1 Semi-Tropic, Kern Co.	15-27-23	3,122	gas, shut in
Milham Expl. Co., No. 2 Semi-Tropic, Kern Co.	15-27-23	2,429	gas, shut in
Milham Expl. Co., No. 3 Semi-Tropic, Kern Co.	15-27-23	2,385	flow. 1,725 m.f.
Milham Expl. Co., No. 4 Semi-Tropic, Kern Co.	24-27-23	....	rigging up
Tejon Ridge Oil Co., No. 1 Comanche, Kern Co.	23-32-29	2,181	sd. sh. drlg.
Shell Oil Co., No. 1 Buena Vista, Kern Co.	9-32-25	8,856	hd. sd. drlg.
Ohio Oil Co., No. 2 Buena Vista, Kern Co.	32-31-26	5,386	sd. sh. drlg.
Silver Gate Oil & Gas Co., No. 1 Tejon, Kern Co.	7-10-19	1,995	sd. sh. drlg.
Tate Well Drlg. Co., No. 1 Kreyenhagen, Fresno Co.	33-22-16	4,160	sd. sh. drlg.
Pacific Expl. Co., No. 1 Kreyenhagen, Fresno Co.	17-21-17	1,143	sd. sh. drlg.
Union Oil Co., No. 1 Lillis Kettleman, Fresno Co.	34-21-16	10,944	redrlg. 9,253
K.N.D.A., No. 54 Kettleman North, Fresno Co.	24-21-16	7,773	br. sh. drlg.
Standard Oil Co., No. 2 Kettleman Middle, Kings Co.	29-23-19	7,885	swabbing
Pet. Sec., No. 1 Kettleman Middle, Kings Co.	30-23-19	5,195	sd. sh. drlg.
Continental Oil Co., No. 1 Kettleman-South, Kern Co.	7-25-20	7,420	looks wet
Farrel Pet., well No. 1, San Luis Obispo Co.	19-31-12	1,880	sd. sh. drlg.
Willett Oil Co., No. 1 Cholame, San Luis Obispo Co.	10-25-15	3,687	suspended
Commonwealth Consd. Gas, No. 1 Tulare Lake, Kings	21-22-20	2,490	gas well
Commonwealth Consd. Gas, No. 2 Tulare Lake, Kings	21-22-20	710	suspended
Dudley Ridge Dev. Co., No. 1 Dudley Ridge, Kings Co.	24-24-20	1,300	cleaning out
Amerada Pet., No. 1 F.L.D., San Joaquin Co.	16- 2- 5	7,253	sd. sh. drlg.
Amerada Pet., No. 2 F.L.D., San Joaquin Co.	15- 2- 5	4,063	gas, shut in
Pure Oil Co., No. 1 Chowchilla, Madera Co.	7-10-14	8,402	gas, shut in
Northern Counties Pet., No. 1 Tehama, Tehama Co.	25-24- 3	5,000	sd. sh. drlg.
Shell Oil Co., No. 1 Branch, Monterey Co.	34-24-10	4,975	bl. sh. drlg.
Youngblood, C., No. 1 Ducor, Tulare Co.	31-23-28	....	rigging up

IMPORTANT SOUTHERN CALIFORNIA WILDCATS

Company, well and location—	S. T. R.	Depth	Status—
Republic Pet. Co., No. 1 El Segundo, Los Angeles Co.	18- 3-14	7,405	pump. 240 b.d.
Larco Oil Co., No. 1 El Segundo, Los Angeles Co.	12- 3-15	6,281	sd. sh. drlg.
Sovereign Oil Co., No. 1 El Segundo, Los Angeles Co.	22- 3-14	6,069	resume work
Associated Oil Co., No. 4 Inglewood Deep, Los Angeles	7- 2-14	4,458	P.B. 3,088 ft.
Standard Oil Co., No. 9 Inglewood Deep, Los Angeles	8- 2-14	3,250	flow. 504 b.d.
Allied Pet., No. 1 Del Rey, Los Angeles Co.	28- 2-15	6,709	cmtd. 6,585 ft.
Blackline Oil Co., No. 1 Del Rey, Los Angeles Co.	27- 2-15	6,634	suspended
Crest Oil Co., No. 1 Del Rey, Los Angeles Co.	27- 2-15	6,297	sd. sh. drlg.
Lucas, Andrew, No. 1 Del Rey, Los Angeles Co.	35- 2-15	6,175	sd. sh. drlg.
Red Seal Oil Co., No. 1 Del Rey, Los Angeles Co.	27- 2-15	6,455	cleaning out
Mathews Pet. Co., No. 1 Del Rey, Los Angeles Co.	27- 2-15	6,543	cleaning out
Birch Royer Oil Co., No. 1 Del Rey, Los Angeles Co.	34- 2-15	6,523	cmtd. fish
Joyce Oil Co., No. 1 Del Rey, Los Angeles Co.	27- 2-15	6,742	P.B. 6,675 ft.
Royalty Serv. Corp., No. 4 Del Rey, Los Angeles Co.	27- 2-15	6,460	redrlg. 6,265
Anglo American Oil Co., No. 1 Del Rey, Los Angeles	27- 2-15	6,094	sd. sh. drlg.
Union Oil Co., No. 15 Del Rey, Los Angeles Co.	27- 2-15	6,210	cmtd. 6,200 ft.
Union Oil Co., No. 16 Del Rey, Los Angeles Co.	27- 2-15	3,710	sd. sh. drlg.
Union Oil Co., No. 17 Del Rey, Los Angeles Co.	27- 2-15	....	bldg. rig
Treasure Oil Co., No. 1 Del Rey, Los Angeles Co.	27- 2-15	4,921	suspended
Dabney Pet. Co., No. 1 Malibu, Los Angeles Co.	5- 2-18	65	tech. spud
Vanco Dev. Co., No. 1 Artesia, Los Angeles Co.	25- 3-12	5,817	suspended
Eyer Pet. Co., No. 1 Torrance, Los Angeles Co.	20- 4-13	....	rigged up
Monarch Oil Corp., No. 1 Topanga, Los Angeles Co.	5- 1-16	300	hd. sd. drlg.
Standard Oil Co., No. 78 Montebello, Los Angeles Co.	2- 2-12	....	rigging up
The Texas Co., No. 1 Montebello, Los Angeles Co.	5- 2-11	6,761	hd. sd. drlg.
The Texas Co., No. 2 Montebello, Los Angeles Co.	5- 2-11	3,730	hd. sd. drlg.
Universal Consd., No. 3 Montebello, Los Angeles Co.	5- 2-11	5,350	hd. sd. drlg.
Universal Consd., No. 4 Montebello, Los Angeles Co.	5- 2-11	4,153	sd. sh. drlg.
Woodward Oil Co., No. 1 Montebello, Los Angeles Co.	4- 2-11	3,167	cleaning out
Wilshire Oil Co., No. 1 Montebello, Los Angeles Co.	5- 2-11	5,575	sd. sh. drlg.
Wilshire Oil Co., No. 2 Montebello, Los Angeles Co.	4- 2-11	1,685	sd. sh. drlg.
Wilshire Oil Co., No. 3 Montebello, Los Angeles Co.	11- 2-11	....	bldg. rig
North American, No. 1 Montebello, Los Angeles Co.	30- 1-10	....	rigging up
Frontier Oil Co., No. 1 Pico, Los Angeles Co.	7- 2-11	4,973	sd. sh. drlg.
Hover, Aaron, No. 1 Pico, Los Angeles Co.	9- 2-11	....	rig, suspended
York Oil Co., No. 1 Brea, Los Angeles Co.	1- 2-10	....	location
Pressel & Tull, No. 1 Fuente, Los Angeles Co.	30- 2- 9	4,531	reaming
Fraser, N. M., No. 1 Saugus, Los Angeles Co.	31- 4-16	475	sd. sh. drlg.
Great Coastal Oil Co., No. 1 Elsinore, Riverside Co.	36- 5- 5	1,525	sd. sh. drlg.
Domain Dev. Co., No. 1 Trabuco, Orange Co.	3- 6- 7	1,086	suspended
Huntington Oil Co., No. 1 Newport, Orange Co.	29- 6-10	....	rig, suspended
Viking Oil Co., No. 1 Richfield, Orange Co.	29- 3- 9	4,573	sd. sh. drlg.
Hillman & Long, No. 1 San Juan, San Bernardino Co.	2- 3- 8	1,305	sd. sh. drlg.
Tehama Pet. Co., No. 1 Chino, San Bernardino Co.	33- 2- 8	2,950	sd. sh. drlg.

LA.-ARK. WILDCATS

(Rotary operations unless otherwise designated)

NORTH LOUISIANA

Avoyelles Parish

Bell Oil Co.'s No. 2 Thompson-Koltz, 450 ft. S, 350 ft. E, NW cor. Sec. 11-2n-5e. Partly R.U. and S.D.

Bossier Parish

Ark.-La. Gas Co.'s No. 3 R. O. Roy, 748 ft. N, 1,270 ft. E, SW cor. Sec. 18-17-11. Reaming to straighten hole, 2,900 ft.

Bossier O. & G. Co.'s No. 3 Sherrill, 330 ft. N and W, SE cor. Sec. 13-19-12. S.D. 2,625 ft.

Virgil Likens' No. 1 Palmer, 1,877 ft. S, 2,014 ft. W of NE cor. Drlg. 1,952 ft.

W. E. Nell's No. 1 Curtis Plant, Sec. 19-17-12. S.D. 230 ft.

Producers O. & G. Co.'s No. 1 Edwards, 660 ft. N and W, SE cor. Sec. 27-18-11. Drlg. 600 ft.

R. L. Skidmore et al's No. 1 Davis, Sec. 12-18-13. S.D. 2,592 ft.

Douglas Spivey et al's No. 1 Bossier Dev. Co., 330 ft. N and E, SW cor. Sec. 16-18-11. Coring 576 ft.

Caddo Parish

J. Ed Bailey, tr.'s No. 1 Hartzo, NW cor. NE NW Sec. 28-22-16. S.D. 1,236 ft.

Holly Oil Co.'s No. 1 Thigpen & Herold, Sec. 15-20-15. T.A. 2,293 ft.

F. D. Hyde's No. 1 Thigpen & Herold, 350 ft. S and E, C Sec. 5-15-15. Drlg. 1,275 ft.

A. D. King, tr.'s No. 1 Roach, 641 ft. E, 375 ft. N, SW cor. SE Sec. 4-14-16. Tested S.W.; arranging to deepen from 2,712 ft.

Leonard Co.'s No. 2 G. Muslow, 760 ft. N and W, SE cor. Sec. 17-20-15. Rigging up.

Leonard Co.'s No. 3 Dickson, 1,625 ft. S, 587 ft. E, NW cor. Sec. 36-21-15. Drlg. 2,230 ft.

Leonard Co.'s No. 46 Crystal, 250 ft. N and W, SE cor. SW NE Sec. 13-21-15. Set 6-in. 1,024 ft.; W.O.S.R. 1,042 ft.

Murray Oil Co.'s No. 2 Noel, 495 ft. S, 735 ft. E, NW cor. SW Sec. 15-20-15. Comp.; pumping 25 bbls., 2,300 ft.

Plummer et al's No. 1 Hughes, SW cor. NE NW Sec. 15-20-15. Drlg. 1,842 ft.

Press & Lambert's No. 2 Hughes, 350 ft. N and W of C Sec. 15-20-15. Comp.; pumping 50 bbls., 2,002 ft.

Puritan Oil Co.'s No. 1 Land, 550 ft. E, 250 ft. N, SW cor. Sec. 4-20-15. Rigging up.

Pyramid O. & G. Co.'s No. 2 Wintera, 330 ft. N, 990 ft. W, SE cor. Sec. 4-18-16. Tested dry; W.O. 2,750 ft.

M. Rodgers' No. 5 Muslow, Sec. 4-20-15. Set 6-in. 1,905 ft.; drlg. 2,160 ft.

A. C. Scott et al's No. 1 Noel Est., 330 ft. S and E, NW cor. Sec. 22-20-15. W.O.S.R. 2,261 ft.

Shreveport Oil Corp.'s No. 1 Caddo Levee Board, 300 ft. S, 150 ft. W, NE cor. Sec. 8-20-15. W.O.; gauge 2,185 ft.

Shreveport Oil Corp.'s No. 2-G Muslow, 750 ft. S, 578 ft. W, NE cor. NW Sec. 9-20-15. Drlg. 2,154 ft.

Simplex Oil Co.'s No. 8 Thomas, SE cor. SW NE Sec. 15-20-15. Set 6-in. 2,185 ft.; W.O.S.R. 2,209 ft.

Triangle Agency's No. 1 Ellerbe, 872 ft. E, 80 ft. N, SW cor. NW Sec. 4-20-15. W.O.S.R. 2,162 ft.

Ty-Stan, Inc.'s No. 1 Jolly, 400 ft. S and E, NW cor. SW SW Sec. 22-22-15. Reaming to bottom 1,900 ft.

Caldwell Parish

Caldwell Drlg. Co.'s No. 1 Gore, 600 ft. W, 330 ft. S, NE cor. SE Sec. 30-12-2e. S.D. 1,300 ft.

Critchett & Woods' No. 1 Kyles, NE cor. SW NE Sec. 18-11-3e. Drlg. 1,600 ft.

G. W. Zeigan et al's No. 1 La.-Central Lbr. Co., 175 ft. S and E, NW cor. SW SW Sec. 25-13-3e. S.D. 1,300 ft.

Catahoula Parish

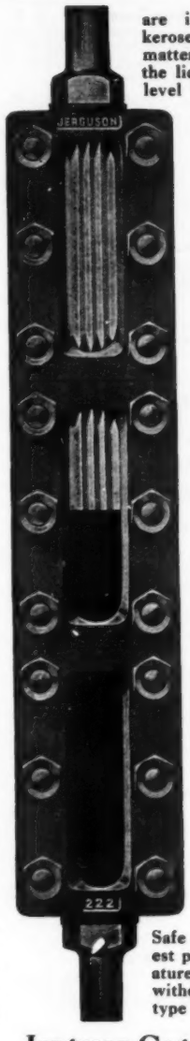
McIntyre et al's No. 1 Tensas, 1,740 ft. S, 990 ft. E, NW cor. Sec. 18-10-6e. Set 10-in. 347 ft.

Claiborne Parish

E. T. Oakes' No. 1 H. W. Patton Est., 660 ft. S and W, NE cor. Sec. 1-20-5w. S.D. for drlg. line, 2,670 ft.

JERGUSON

REFLEX GAGES



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De Soto Parish

E. B. Bird et al's No. 1 J. H. Johns, 330 ft. N and W, C Sec. 20-14-6.
S.D.; W.O. 2,630 ft.

DeSoto Pet. Co.'s No. 1 B. Y. Wemple, C S½ SE NE SW Sec. 14-12-11.
Arranging to set csg. 2,590 ft.

Sam Goldman's No. 1 G. R. Stell, 330 ft. S and W, NE cor. Sec. 5-12-16.
Set 12-in. 87 ft.

Leslie Prod. Co.'s No. 1 Ramsey, 150 ft. N and W of C Sec. 36-11-11.
Set 10-in. 45 ft.

National Oils, Inc.'s No. 1 B. Y. Wemple, NW SW Sec. 14-12-11.
S.D. 120 ft.

C. T. Ruffin's No. 2 Lee, 150 ft. N, 660 ft. E, SW cor. NW SW Sec. 33-14-13.
Rigging up.

M. L. Stephens' No. 1 Alston, 345 ft. S, 270 ft. W of C Sec. 11-11-16.
W.O.S.R. 2,003 ft.

Grant Parish

Alexander et al's No. 1 Maxwell, Sec. 9-9-1e.
S.D. 525 ft.

La Salle Parish

Fred W. Hensley's No. 1 Urania, Sec. 7-10-2e.
Set 10-in. at 100 ft.; set 6-in. at 1,508 ft.; W.O.S.R. 1,516 ft.

H. L. Hunt, Inc.'s No. 1-A King, 225 ft. S, 210 ft. E, NW cor. NE NW Sec. 36-10-1e.
Comp.; pumping 10 bbls., 1,524 ft.

Lincoln Parish

Herman L. Brown's No. 1 Monstead, 1,320 ft. S, 660 ft. E of C Sec. 10-17-4w.
Drlg. 4,622 ft.

Madison Parish

San. Land & Exploration Co.'s No. 1 Delta Land Co., Sec. 1-17-12e.
S.D. 1,980 ft.

Morehouse Parish

J. H. Gibson, tr.'s No. 1 Thomas, 330 ft. S and W, NE cor. Sec. 16-22-7e.
Coring 2,932 ft.

Southern Carbon Co.'s No. 16 Tensas, Sec. 34-21-4e.
Comp.; 9,500,000 ft. of gas, 2,152 ft.

Zeiger & Bacon's No. 2 Crossett Lbr. Co., 3,870 ft. N, 505 ft. E, SE cor. SE SW of Sec. 36, in Sec. 41.
S.D. 50 ft.

Ouachita Parish

American Liberty Oil Co.'s No. 1 Golson, C NW Sec. 25-17-1e.
Drlg. 4,900 ft.

Ark.-La. Gas Co.'s No. 11 Rea Green, 660 ft. S, 1,220 ft. E, NW cor. NE.
Comp. 3,000,000 ft. gas, 2,186 ft.

Ark.-La. Gas Co.'s No. 13 Rea Green, 660 ft. N, 1,270 ft. W, SE cor. Sec. 34-19-4e.
Set 10-in. 149 ft.; drlg. 1,868 ft.

Carbon Consolidated's No. 4 Feazel, 1,900 ft. N, 1,660 ft. E, SW cor. NW Sec. 31-19-4e.
Set 10-in. 194 ft.; set 6-in. 2,134 ft.

Carbon Consolidated's No. 2 Inabnet & Pipes, Sec. 1-18-3e.
Set 10-in. 145 ft.; drlg. 1,500 ft.

Carbon Consolidated's No. 1 Mabnet & Piper, 1,672 ft. W, 396 ft. S, NE cor. Sec. 1-18-3e.
Comp.; 2,500,000 ft. gas, 2,100 ft.

J. E. Farrell & Co.'s No. 5 State of La., 1,593 ft. E, 125 ft. N, N¼ cor. Sec. 22, in Sec. 49-20-4e.
Comp.; 10,000,000 ft. gas, 2,140 ft.

Hamilton Gas Co.'s No. 2 Park, 820 ft. S, 232 ft. E, NW cor. Sec. 1-19-3e.
Drlg. 75 ft.

Inabnet & Piper's No. 4 D'Arbone, 3,300 ft. S, 1,980 ft. E, NW cor. Sec. 34-19-3e.
Set 10-in. 154 ft.

United Gas Pub. Ser. Co.'s No. 1 Wall, 2,937 ft., 674 ft. W, SE cor. SW Sec. 23-19-3e.
Set 6-in. 2,135 ft.

Rapides Parish

Amerada Pet. Co.'s No. 1 Well, 2,450 ft. N, 550 ft. E, SW cor. Sec. 53-1s-2e.
Set 11¾-in. 1,671 ft.; T.D. 1,681 ft.

Natchitoches Parish

Ab Jones' No. 1 Brown Lbr. Co., 400 ft. N, 330 ft. W, SE cor. Sec. 5-10-10.
S.D. 1,032 ft.

Howard & Kittrell's No. 1 DeBlieux, 1,395 ft. E, 150 ft. S, NW cor. Sec. 83-10-7.
Drlg. 1,345 ft.

Red River Parish

J. S. Tuffree's No. 1 Wilkinson, 1,320 ft. S and W, NE cor. Sec. 11-12-11.
S.D. 1,395 ft.

Sabine Parish

B. S. & M. Oil Co.'s No. 1 Tatum, 330 ft. S and E, NW cor. NW SE Sec. 32-8-15.
Set 8-in. 1,590 ft.; testing 1,795 ft.

Hill Myers' No. 1 Magness, Sec. 30-9-13.
Set 7-in. 1,584 ft.

M. T. Hines' No. 1 J. B. Hill, SW NE Sec. 4-6-11.
Tested S.W. 3,012 ft.; S.D.; W.O.

Jack Lent's No. 1 Williams, Sec. 13-7-11
Drlg. 2,330 ft.

Geo. L. Pace's No. 1 Logan Oil Co., NW SW Sec. 26-10-12.
Set 8-in. 1,410 ft.

Lee Whitehurst's No. 3 Frost Lbr. Ind., 660 ft. S and E NW cor. Sec. 29-9-13.
S.D. 1,995 ft.

Union Parish

Interstate Nat. Gas Co.'s No. 1 Talton, 660 ft. S and W, center Sec. 14-20-3e.
Comp.; 2,500,000 ft. gas, 2,153 ft.

Southern Carbon Co.'s No. 6 Grayling Lbr. Co., 600 ft. S, 1,900 ft. E, NW cor. Sec. 28-21-4e.
Derrick.

Southern Prod. Co.'s No. 1 Clark, 500 ft. N and W, SE cor. NW NW Sec. 17-23-1e.
S.D. 2,296 ft.

United Carbon Co.'s No. 1 Jenny, 1,320 ft. W, 660 ft. S, NE cor. Sec. 12-20-3e.
Set 6-in. 2,096 ft.

Webster Parish

Bennett & Eldred's No. 1 Fulbright, NE NE Sec. 1-18-10.
Drlg. 1,490 ft.

Winn Parish

Parsons et al's No. 1 Tremont Lbr. Co., 660 ft. S, 330 ft. E NW cor. SW Sec. 10-12-2w.
S.D. 410 ft.

ARKANSAS

Arkansas County

Grand Prairie Realty Co.'s No. 2 Fischer, 412 ft. S, 12 ft. W, NE cor. NW NW Sec. 6-6-4w.
Fishing for D.S. 1,628 ft.

Ashley County

Benedum & Trees' No. 1 Holmes, C NE SW Sec. 4-17-5.
R.U. and drlg. wtr. well.

Glenn E. McFaddin et al's No. 1 Boreine Farms, 660 ft. S and W, NE cor. Sec. 1-18-8.
S.D. 2,800 ft.

Texas-Seaboard Oil Co.'s No. 1 fee, C NW NE Sec. 28-17-4.
Junked and abd., 2,504 ft.

Calhoun County

Hunter Co.'s No. 1 Stout Lbr. Co., 2,077 ft. S, 150 ft. E, NW cor. NE Sec. 33-16-13.
S.D.; W.O. 3,597 ft.

Columbia County

J. G. Cubage et al's No. 1 Rhea, 150 ft. N line, 330 ft. E. SW cor. SE SE Sec. 12-17-22.
S.D. 3,506 ft.

Southern States Gas Co.'s No. 1 Piney Woods Lbr. Co., 330 ft. N and E, SW cor. NE NW Sec. 10-20-22.
S.D. 960 ft.

Dallas County

McCall & Kelly's No. 1 Ray Owen, 330 ft. S and E, NW cor. NW SW.
Set 10-in. 62 ft.; coring 302 ft.

Hempstead County

A. H. Bagnelle's No. 1 Trattner & Rhinehart, Sec. 2-13-26.
S.D. 1,992 ft.

F. W. Martin's No. 2 Lafferty, C NW Sec. 17-14-24.
Rigging up.

LaFayette County

Earl F. Fox' No. 2 Coleman Bros., NE NE Sec. 30-16-24.
Rigging up.

Kamon & Neely's No. 1 Cockran, NW cor. SE SW Sec. 26-19-25.
S.D. 4,450 ft.

Joe Modisett's No. 1 Red River Lbr. Co., C SW SW Sec. 21-19-14.
Moving in rig.

Riggs Bros.' No. 1 Dubose, SE cor. SW NW Sec. 35-15-24.
P.B. to 2,597 ft. from 2,817 ft.

Transportation Pet. Co.'s No. 1 Cockran. 300 ft. S and W, NE cor. SE Sec. 26-19-25.
Coring 2,080 ft.

Miller County

E. J. Donohue's No. 3 E. L. Beck, 620 ft. S and E, NW cor. SW NE Sec. 33-15-26.
S.D. 2,930 ft.

M. D. K. Fitzwater's No. 1 E. H. Beck. 150 ft. N and E, SW cor. NW SW Sec. 34-15-26.
W.O.S.R. 2,919 ft.

King Oil Corp.'s No. 1 G. W. Crank, SW NE Sec. 19-16-25.
Set 10-in. 66 ft.

L. H. Mahon et al's No. 1 Miller Land & Timber Co., SW cor. SE Sec. 29-18-27.
Set 10-in. 150 ft.

Snowden & Hill's No. 1 E. H. Beck, 255 ft. E and 330 ft. S, NW cor. SW SW Sec. 34-15-26.
W.O.S.R. 2,926 ft.

Two Forty Oil Co.'s No. 2 Beck, SE cor. NW SE Sec. 33-15-26.
Drlg. 1,020 ft.

Nevada County

Carnett et al's No. 1 Floyd Munin, C SW Sec. 16-14-22.
S.D. 50 ft.

Ouachita County

Snow-Black Pet. Co.'s No. 1 Bedford, 650 ft. N and 150 ft. E, SW cor. Sec. 32-11-18.
S.D.; rig repair, 1,547 ft.

Poinsett County

Rockwell Dev. Co.'s No. 1 W. A. Smith, NE NE Sec. 13-11n-3e.
Drlg. 1,945 ft.

Sevier County

Pendleton & Vaughn's No. 1 State Life Ins., C SW SE Sec. 27-9-30.
Set 10-in. 40 ft.; drlg. 476 ft.

Union County

Arkansas Southern Oil Co.'s No. 1 F. R. Laney, Sec. 20-19-16.
Set 10-in. 175 ft.

Gardy Drlg. Co.'s No. 1 Craig, Sec. 35-17-16.
S.D. 2,211 ft.

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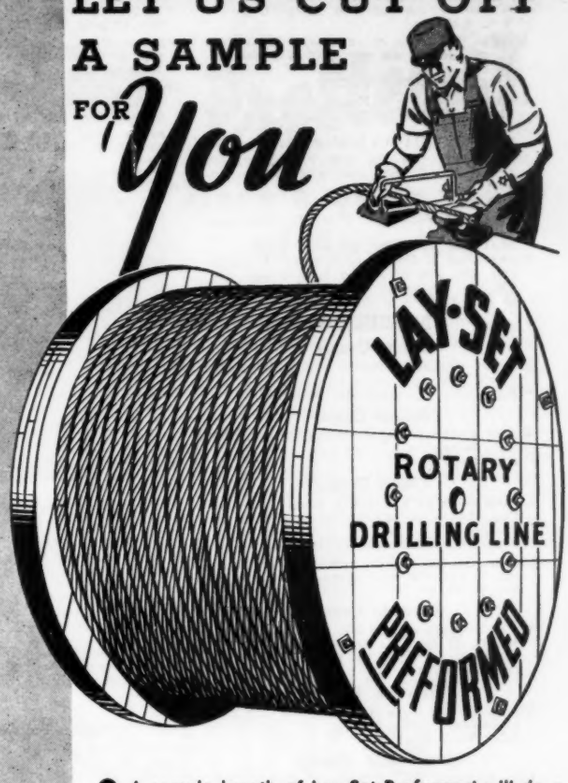

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GIDDENS-LANE BUILDING -:- SHREVEPORT, LA.

H. L. Hunt's No. 15 E. F. Gregory, 330 ft. N and W, SE cor. Sec. 16-17-14.
T.A. 3,478 ft.

Mrs. R. K. Jones et al's No. 1 Davis, 330 ft. N and W, SE cor. NW NW Sec. 28-16-14.
Arranging to test 3,297 ft.

Lion Oil Ref. Co.'s No. 7 Hardy-Murphy, 510 ft. N, 300 ft. W, SE cor. NE NW Sec. 9-16-15.
Set 7-in. 2,314 ft.; testing 2,320 ft.

Marine Oil Co.'s No. 8-E Thompson, 330 ft. N and E, SW cor. SW SE Sec. 3-18-13.
Moving in rig.

Marine Oil Co.'s No. 3 M. H. Simmons, Sec. 10-18-13.
W.O.S.R. 3,541 ft.

Richardson & Proetz et al's No. 1 Gallon Lbr. Co., 330 ft. S and E, NW cor. NW SE Sec. 10-16-14.
Coring 1,736 ft.

MISSISSIPPI

Amite County

Mineral Resources, Inc.'s No. 1 Anderson, C NE NW Sec. 14-3n-3e.
S.D. 550 ft.; taking new leases.

Bolivar County

White & Jones' No. 1 Ballou, SE SE NW Sec. 17-24n-7w.
S.D. 1,614 ft.

Clarke County

L. Beckwith et al's No. 1 Long Bell Lbr. Co., 538 ft. S, 135 ft. W of C Sec. 10-1n-16e.
T.A.; lack of funds.

Clarke County Oil Co.'s No. 1 Dora Butler, C SW SW Sec. 15-2n-16e.
Set 10-in. 61 ft.

Grenada County

W. L. Stewart et al's No. 1 W. W. Wood, 460 ft. N, 500 ft. W, SE cor. NE Sec. 19-22n-5e.
Drlg. 4,695 ft.

Harrison County

Big Ridge Oil Co.'s No. 1 Hinzin, NE Sec. 13-7s-10w.
S.D.; W.O. 1,100 ft.

Lauderdale County

Bob Dalton's No. 1 Bounds, Sec. 34-7n-15e.
S.D.; W.O. 1,600 ft.

Monroe County

P. J. McAlpine's No. 1 Frank Rye, Sec. 15-15s-17w.
T.A. 2,931 ft.

P. J. McAlpine's No. 1 Crook, 1,090 ft. S. 90 ft. W. NE cor. Sec. 15-13s-13w.
T.A. 2,537 ft.

Simpson County

Berry Corp.'s No. 2 R. T. Berry, Sec. 33-2n-4e.
T.A. 2,510 ft.

Warren County

H. W. Elliott et al's No. 2 R. L. Parker, 780 ft. E. 1,570 ft. S, NW cor. Sec. 14-14n-1e.
S.D.; W.O. 1,600 ft.

Washington County

Perkins & Dees' No. 1 Lee, 1,500 ft. E. 500 ft. N, SW cor. Sec. 33-15n-3w.
S.D. 2,175 ft.

Winston County

Jack Vale et al's No. 1 Moody, 713 ft. N, 667 ft. E, SW cor. NW SW Sec. 3-13n-14e.
Set 6-in. 2,212 ft.

ALABAMA

Covington County

Geometer Prod. Corp.'s No. 1 Culbreath, SW cor. SW NE Sec. 8-2n-14e.
S.D. 6,260 ft.

Houston County

Rice O. & G. Co.'s No. 1 Oakley Est., SE cor. NW SW Sec. 9-3n-29e.
S.D. 3,035 ft.

Lamar County

DeSoto O. & G. Corp.'s No. 1 Gardner, Sec. 22-15s-14w.
Drlg. 4,670 ft.

Mobile County

J. C. Prine's No. 1 fee, N½ NE Sec. 4-1s-4w.
Drlg. 2,550 ft.

FLORIDA

Lake County

Oil Dev. Co. of Florida's No. 1 South Lake, SE SE Sec. 17-24s-25e.
S.D. at 1,946 ft. after coring 75 ft. of lime; awaiting acid treatment.

LA.-ARK. PROVEN
NORTH LOUISIANA

Caddo—Rodessa

Ark.-La. Gas Co.'s No. 2 Rodessa O. & Land Co., 1,945 ft. S, 719 ft. W, NE cor. Sec. 22-23-16.
Rigging up.

Ark.-La. Gas Co.'s No. 1 J. S. Teamer, 330 ft. N and 660 ft. W, SE cor. SW SE Sec. 13-23-16.
Coring 5,725 ft.

Eastern Texas Prod. Co.'s No. 1 Caddo School Board, C&L NE SW Sec. 21-23-16.
Drlg. 3,956 ft.

Haynes Prod. Co.'s No. 2 W. B. Lawton, 1,980 ft. N, 990 ft. E, SW cor. Sec. 14-23-16.
Set 12½-in. 266 ft.

Haynes Prod. Co.'s No. 1 T. F. Sexton, 660 ft. S and E of C Sec. 14-23-16.
Rigging up.

Haynes Prod. Co.'s No. 1 W. B. Lawton, 1,980 ft. N and E, SW cor. Sec. 14-23-16.
Comp.; flowing 12,600 bbls., 6,052 ft.

Haynes Prod. Co.'s No. 1 Harry Otwell, 660 ft. N, 560 ft. W, SE cor. Sec. 15-23-16.
P.B. from 6,081 ft. to 6,031 ft.

R. W. Norton's No. 1 Caddo Levee Board, 660 ft. N and W, SE cor. NE Sec. 21-23-16.
Drlg. 5,030 ft.

O'Brien Bros.' No. 1 Rodessa Oil & Land Co., 660 ft. S and 330 ft. E, NW cor. SW Sec. 14-23-16.
Drlg. 5,725 ft.

Dan Perkins' No. 1 W. J. Hunter, 1,980 ft. N, 825 ft. E, SW cor. Sec. 13-23-16.
Location.

Pelican Oil & Gasoline Co.'s No. 1 Sexton, 660 ft. S and W, NE cor. SE Sec. 14-23-16.
Testing 6,035 ft.

United Gas Public Service Co.'s No. 2 Rodessa Oil & Land Co., 660 ft. S and W, NE cor. Sec. 22-23-16.
Set 13⅜-in. 706 ft.; drlg. 2,690 ft.

United Gas Public Service Co.'s No. 1 W. M. Bremer, 1,980 ft. N and 660 ft. E, SW cor. Sec. 22-23-16.
Drlg. 5,317 ft.

United Gas Public Service Co.'s No. 1 Gibson Est., 660 ft. N, 1,980 ft. W, SE cor. Sec. 15-23-16.
Set 8⅝-in. 5,323 ft.

United Gas Public Service Co.'s No. 1 Rodessa Oil & Land Co., 1,980 ft. N and 660 ft. W, SE cor. Sec. 15-23-15.
Set 8⅝-in. 5,080 ft.; drlg. 5,251 ft.

United Gas Public Service Co.'s No. 1 Thomas Unit, 634 ft. S, 1,962 ft. E, NW cor. Sec. 22-23-16.
Drlg. 5,808 ft.

Grady Vaughn's No. 1 T. M. Comegys, 330 ft. N and E, SW cor. SE SE Sec. 10-23-16.
Derrick.

Sabine Parish—Zwolle

Alexander & Crane's No. 1 Fogman, SE cor. N½ SW NE Sec. 18-7-11.
S.D. 2,655 ft.

Hunter Co.'s No. 17 Sabine Lbr. Co., C S½ Sec. 7-7-11.
Rigging up.

H. C. Maulding's No. 1 Davis, 350 ft. N and W, SE cor. NE NE Sec. 2-7-11.
S.D. 400 ft.

K. C. Peterson et al's No. 1 Bowman-Hicks, 330 ft. S and E, NW cor. SW NW Sec. 2-7-9.
Location.

Tex.-La.-Ark. Oil Co.'s No. 1 Pickering Lbr. Co., Sec. 3-3-12.
Dry and abd. 2,742 ft.

EAST TEXAS
(Border Counties)

Harrison County

R. C. Payne et al's No. 1 Lowery, H. D. Spain Sur.
P.B. to 3,524 ft.

Marion County

Ed S. Holman's No. 1 Henderson, R. Bennington Sur.
P.B. to 2,443 ft.

Panola County

R. A. Graddy's No. 1 M. J. McCormick, J. McAdams Sur.
Drlg. 2,650 ft.

George Hudson et al's No. 1 J. F. Nail, C. McGeary Sur.
Set 8-in. 40 ft.; fishing for core bbl. at 2,345 ft.

Geo. Le Grand's No. 1 P. J. Wardleigh, A. Thompson Sur.
Set 10-in. 62 ft.

R. W. Price's No. 1 Crawford, J. A. Williams Sur.
Set 10-in. 64 ft.

Fred Stovall Drlg. Co.'s No. 1 H. D. Ivey, P. Martin H.R.S.
S.D. for csg. 1,980 ft.

Shelby County

Cliff Stoval's No. 1 Pickering Lbr. Co., C. H. Patterson Sur.
S.D.; rig repair, 1,485 ft.

S. W. TEXAS WILDCATS
Week Ending September 14

Atacosta County

Robert McIntyre's No. 1 Billimek, 1,164 ft. SW line, 3,709 ft. SE line, J. D. Woodruff Sur. No. 246.
Location.

Don Meghan's No. 2 Donna, Farms Co. 15,000 ft. W line, 8,200 ft. S line, Barbara Sanchez Sur.
T.D. 4,007 ft., D.&A.

Bandera County

Plateau Oil Co.'s No. 1 Garrison, G.C.&S.F. Sur. No. 506, 1,500 ft. from W and 2,976 ft. from N lines of survey.
Drlg. 4,240 ft., hard shale.

Palm Winn Oil Co.'s No. 1 Watson, 600 ft. N of center line, Sur. 71 (workover).
Drlg. 2,652 ft.

Bastrop County

Joe Mills et al's No. 1 American National Bank of Austin, R. Gage Sur., 150 ft. NE line, 2,300 ft. SE line of survey.
T.D. 1,917 ft., D.&A.

Bee County

G. M. Church's No. 1 J. C. Woods, 330 ft. from N line, 330 ft. W of road, J. Ryan Sur., H.&G.N.R.R., Abstract 186.
T.D. 3,814 ft., S.D.

D. V. Smith et al's No. 1 Atkins, M. M. Wood Sur.
Rigging up; standing.

Stratton & Heflin's No. 1 Brashear, 150 ft. NW line, 150 ft. SW line, 50-ac. tract, ½ mile N Mineral, H. Coley Sur.
Drlg. 3,814 ft.

Bexar County

Fay Chew's No. 2 Jones, 1,025 ft. E line, 150 ft. N line, A. Thompson 50-ac. tract, Jacinto Pena Sur. No. 9.
Set csg. 658 ft.; W.O.C.

Fay Chew's No. 5 Jones, Sec. 9, Pena Sur., 1½ miles E of Adkins.
No report.

Jas. B. Cunningham's No. 1 L. F. Ridder, 950 ft. S of Nelson Road, 1,300 ft. from E line, Block 5,196, Sur. No. 58.
Drlg. 615 ft.

Dorine Oil Co.'s No. 2 Tudyk, 600 ft. E line, 400 ft. S line, Blk. 4.
T.D. 760 ft.; P.B. 610 ft.; to test at 575 ft.; Standing.

Joe Dupree's No. 1 R. S. Coffey, 965 ft. SW line, 910 ft. SE line lease, Rodriguez Sur.
Drlg. 192 ft.

C. J. LeComte's No. 1 Herbst, 150 ft. out of SW cor. of Manuel Leal Sur.
T.D. 870 ft.; wtr. sand; S.D.

McPhee & Briggs' No. 1 F. Lamb, 9,200 ft. from S line, 800 ft. from W line of Sur. No. 2 (Manuel de Luna).
T.D. 2,337 ft.; fishing for bailer; 150 ft. oil standing in hole.

Mid-Texas Prod. Co.'s No. 1 C. G. Walker, 330 ft. out of NE cor. Lot 21, S. M. Doble Sur. No. 79.
Setting csg. 1,880 ft.

Morgan & Magna's No. 1 Kirkwood, Desaque Sur., 9 miles SW of San Antonio.
Location.

J. H. Parker's No. 1 McCloskey, 150 ft. W line, 1,525 ft. N line, tract, Desaque Sur.
T.D. 530 ft.; S.D.

Carroll C. Raborn's No. 1 Claude McCauley, 150 ft. from N and NW lines of tract in Sec. 52, Wm. Harrison Sur.
T.D. 950 ft.; standing.

Blanco County

H. R. Roe and W. E. Nixon's No. 1 Polk Morrisey, 2,000 ft. from W line, 1,000 ft. out of SE cor., 1,500 ft. from N line of Thomas H. Webb Sur. No. 91.
T.D. 370 ft.; lime; S.D.

Brooks County

Winfield and Mosser's No. 1 Singer, 660 ft. NE line, SE¼ Sec. 312.
Location.

Caldwell County

J. J. Elam's No. 1 Brown, 450 ft. SE and SW lines of lease, Souvereign Sur.
Derrick.

Cameron County

Joseph Anderson's No. 1 Browne, Blk. 379, San Benito Subd., Espiritu Santo grant, 2 miles N Rio Hondo.
Drlg. 320 ft.

Kingwood & Daniels' No. 1 Port Isabel.
Location.

Dewitt County

Reginald F. Baurke's No. 1 W. C. Steinman Est., 937 ft. from N and S lines, Uriah Blue 1-3 League.
Drlg. 1,870 ft.

D. G. Glaspier's No. 1 Schuebel, 330 ft. from S and W lines of tract, Fitzgerald grant.
Set surface csg.; standing.

Dimmitt County

Diamond Half Oil Co.'s No. 1 Eardley Est., 2,390 ft. SW line, 330 ft. NW line, E. A. McCorquodale Sur. No. 6.
Set sur. csg., W.O.C.

Joe Lundin's No. 1 Nueces Sand, 330 ft. NE line, cor. Lot 16, Blk. 7.
Location.

Duval County

Allen and Morris' No. 1 Dinn, 330 ft. N and W lines, NE¼ Sur. 665.
Drlg. 3,112 ft.

J. H. Chandler's No. 1 Rita Pena, 1,325 ft. of NW line, 3,825 ft. of SW line, Share 4, Mesquite grant.
No report.

Magnolia Pet. Co.'s No. 2 D.C.R.C., 990 ft. S line, 330 ft. E line, Sur. 100.
Location.

Marzo Oil Co.'s No. 1 E. R. Hagist, 150 ft. from E line, 330 ft. from N line, Sec. 269, Blk. 8, Beaty, Seale & Forward Sur.
Sand 2,116-21 ft.; running tubing, swabbing.

Plymouth Oil Co.'s No. 1 Cuellar, 330 ft. NW and NE lines, Sur. 123.
T.D. 1,966 ft., fishing for bit.

Stanolind O. & G. Co.'s No. 1 Farmers Life Ins. Co., 3,987 ft. E line, 330 ft. N line, Sur. 414.
T.D. 2,460 ft.; killed, to drill deeper.

Sun and Tide Water's No. 1 Worden-Draught, 1,600 ft. N line, 800 ft. E line, Sur. 151.
Sand 1,644-50 ft., salt water, T.D. 2,520 ft.; D.&A.

Santa Clara Oil Co.'s No. 1 Corbett, center N½, NW¼ Sec. 92.
M.I.M.

Santa Clara Oil Co.'s No. 1 Sevier, C Blk. 70, T.&N.O. Sur.
Drlg. 2,940 ft.

Edwards County

Paul Tear' No. 1 Stewart, C SE¼, Sec. 2, G.C.&S.F. Sur.
Location.

Frio County

W. D. Bacon's No. 1 Burns, 2,500 ft. S and W line, Thomas Clifton Sur.
M.I.M.

Midland Oil Co.'s No. 1 Halff & Oppenheimer, 330 ft. S and W lines, Sur. 11.
Location.

Goliad County

Hendricks et al's No. 1 Gillette, 330 ft. of NW and SW lines of tract, G. Gomez Sur.
Location.

Keystone Royalty Co.'s No. 2 M. Woods, 330 ft. S and E of No. 1 Woods.
M.I.M.

Gonzales County

S. W. Forrester Oil Co., Inc.'s No. 1 Stein, 475 ft. of SW line, 1,033 ft. of SE line, 311-ac. tract, Bane Sur.
Set surface csg.; S.D.

Interallied Pet. Co.'s No. 1 Wells, 1,708 ft. S line, 185 ft. W line, Sec. 3, 618-ac. subvd., Wells Ranch.
Bane Sur.
Rigging up.

Resource Prod. Corp.'s No. 1 Sanbeck, 708 ft. NW line, 1919 ft. SW line, Salinas Sur.
Spudded in; S.D.

Guadalupe County

J. E. Clark's No. 1 Larison, 150 ft. E line road, Davis Sur.
No report.

Gallagher's No. 1 Lay, 150 ft. N and W lines tract, J. K. Davis Sur.
Location.

Grace et al's No. 1 Okietree, 400 ft. SE line, 1,600 ft. SW line, 404-ac. tract, Robert Smith Sur. No. 15.
Redrlg. old well; T.D. 2,245 ft.; S.D.

Bob Gode et al's No. 1 Hicks, 1,320 ft. from E line, 150 ft. from S line of 189-ac. tract in Santo Y. Coy Sur.
Drlg. 1,603 ft.

J. Harper's No. 1 Flucher, 220 ft. NE line (Creek), 150 ft. NW line tract, Robert Smith Sur. No. 15.
T.D. 200 ft.; S.D.

Hopkins Bros. No. 1 Gabriel, 150 ft. NE and SE lines lease, Geo. Allen Survey.
Location.

Inter-Allied Pet. Co.'s No. 1 Wells, 1,708 ft. NE line, 175 ft. SW line, Sec. 3, 80-ac. tract, Sur. 3.
Location.

R. C. Robbins' No. 1 Manford, 1,200 ft. E line, 750 ft. S line, tract, Hodges Sur.
Location.

W. T. Scrutchin's No. 1 A. H. Smith, 150 ft. from E line, 1,350 ft. from N line of 34.5-ac. tract, Jas. H. Cowan Sur.
T.D. 835 ft.; S.D.

Hidalgo County

Downey & Morton's No. 1 Daskom, 450 ft. from E line, 55 ft. from S line of Blk. 34, Por. 45.
T.D. 4,115 ft.; swabbing.

Maddox & Walter's No. 1 John H. Sharp, 308 ft. from SE line, 440 ft. from SW line of Blk. 21, Porcion 58.
No report.

Mundy & Son's No. 1 Guerra, 853 ft. from W line, 1,275 ft. from N line of Tract 12, Porcion 41.
T.D. 3,030 ft., sand 2,732-59 ft., gas, setting csg. 2,800 ft.

Sloan et al's No. 1 Brock & Showers, 250 ft. S and W lines, Lot 9, Blk. 16, Por. 80.
T.D. 3,610 ft., S.D.

Jim Hogg County

Macon Pet. Co.'s No. 1 Gomez, 990 ft. S line, 330 ft. W line, Sur. 105.
Drlg. 880 ft.

Miller & Pippin's No. 1 Yeager, 527 ft. S line, 150 ft. E line of Blk. 6, Sur. 20.
Fishing 3,620 ft.

A. W. Phillips' No. 1 Allen, 660 ft. from S and E lines of Blk. 293, Pippin Subd. of the Randado grant.
T.D. 42 ft.; abandoned.

G. C. Rankin et, NW cor. Lot 6, Sec. 5.
S.D. 63 ft.

Karnes County

Gar Oil Co.'s No. 3 Radford, 404 ft. NW line, 1,650 ft. NE line, Nichols Sur.
Drlg. 2,900 ft.; top Hockley 2,800 ft.

Marts Pet. Co.'s (Harris & Jecker), No. 1 Cochran, 150 ft. from S line, 360 ft. from E line, McConnel League.
Drlg. 236 ft.

Harry Sample's No. 1 Seeger, 330 ft. from W line, 330 ft. SW of road, J. Pointevent Sur.
S.D. 3,008 ft.

R. G. Tonkin's No. 2 Henke, 3,670 ft. from SW cor., 330 ft. from W line (location changed).
Location.

Kendall County

J. C. Freeman's No. 1 J. M. Gerffers, 1,200 ft. out of SW cor. of 119-ac. tract, Mara Hodgson Sur.. Sec. 796.
T.D. 102 ft.; S.D.

Southwestern Dev. Co.'s No. 1 Werner, 765 ft. W line, 1,645 ft. N line, J. F. Torrey Sur. No. 781.
Drlg. 714 ft.

Kerr County

Eastland Oil Co.'s No. 5-E Love, 1,580 ft. E line, 300 ft. N line, Sur. 1,591.
Set csg. 5,622 ft.; standing.

Kleberg County

Harry Clark's No. 1 Rodgers, Lot 5, Blk. 36.
S.D. 750 ft.

Fidelity Expl.'s No. 2 Henry, Lot 2, Blk. 49.
Location.

Fidelity & Culbertson Exploration Co.'s No. 1 Kivlin, Blk. 39, Lot 4, K.T.&I. Sur. Location.

Fidelity Expl.'s No. 1 Henry, Lot 2, Sec. 49, K.T.&O. Sur.
T.D. 3,027 ft.; P.B.; perforated 2,642-48 ft.; testing.

Fidelity Oil Co.'s No. 1 Flato, 150 ft. S and E lines, Blk. 14, Sec. 40, K.T.&I. Sur. Location.

Parr & Ponder's No. 1 Sam Michalk et al, 330 ft. from N line and 775 ft. from S line, Blk. 37, Sec. 5; 5 miles SE Kingsville.
T.D. 2,000 ft.; S.D.

Lee County

J. Spivey's No. 1 First National Bank, 330 ft. S and E lines tract, Mack Sur. Location.

Live Oak County

E. H. Buchner's No. 1 McNeill, 300 ft. of SW cor. of 40-ac. tract, Blk. 8, McNeill Subd. Location.

Earl Calloway's No. 1 Lyne, 895 ft. of W line, 330 ft. of N line, SW¼ SW¼ of M. M. Lyne Sur.
M.I.M.

Earl Calloway's No. 1 George West estate, Sec. 255, H.S.&F. Sur.
T.D. 4,688 ft., D.&A.

Conway & Buescher's No. 1 Sanger, 330 ft. N of center of NW line of Sur. 224 in Sur. 383.
S.D. 210 ft.

Henderson Coquat's No. 1 Reagan, McGloin Sur., E of Nueces River and S of Oakville.
T.D. 4,500 ft., salt water, abandoned.

J. O. Whittington's No. 4 Little, 990 ft. S and E lines, Shipp Sur. Location.

J. O. Whittington's No. 3 Little, 660 ft. SW of No. 2 Little.
Drlg. 1,214 ft.

Maverick County

Thompson & Sheeter's No. 1 Wipff, 330 ft. W line, 1,800 ft. S line, Sec. 18.
Drlg. 233 ft.

McMullen County

Aransas Oil Co.'s No. 1 Reed, 330 ft. E line, 1,320 ft. S line, Spicer Sur.
Standing 1,680 ft.

Bussa Oil Co.'s No. 1 F. B. Horton, center of E½ of NW¼ of S 640-ac. of J. M. Jean Sur. No. 29.
Drlg. 881 ft.

Carruth & Hagen's No. 1 Lange, 1,900 ft. W line, 330 ft. N line tract, Wm. Haley Sur.
P.B. 1,142 ft.; standing.

Darby Pet. Co.'s No. 1 Hagist, 660 ft., N and W lines, Sur. 125. Location.

Howard & Carpenter's No. 1 Jungman, 1,030 ft. from E line, 950 ft. from S line, Hely Sur.
S.D. 1,205 ft.

Chas. A. Hall's No. 1 B. C. Claunch, 368 ft. from N line, 160 ft. from E line of 25-ac. tract, Michael Haley Sur. Location.

Lucky Strike Oil Co.'s No. 1 Lark, 150 ft. S and E lines, Blk. 114, Scrugham Sur. No report.

L. D. Ormsby's No. 5 Griffith, 330 ft. N line, 1,030 ft. E line, Sur. 50.
Set sur. csg. W.O.C.

Points et al's No. 1 Fahler, 422 ft. S line, 819 ft. E line of tract, Byrna pasture.
T.D. 1,004 ft.; recementing.

Medina County

F. Brown's No. 1 Brucks, 900 ft. W line, 660 ft. S line, Brucks tract, John Ward Sur.
T.D. 300 ft., setting csg.

Cinco Oil Co.'s No. 2 Roy Taylor, 600 ft. N line, 150 ft. E line, NE¼ W½ Sur. 135.
Drlg. 242 ft.

Joe Dupree's No. 2 Batta, 1,447 ft. N line, 1,738 ft. E line, Ball Sur.
No report.

Joe Dupree's No. 1 Brucks, 404 ft. N line, 165 ft. E line, Castro Sur. No. 48.
No report.

Joe Dupree's No. 1 Batto, 258 ft. from E line, 957 ft. from N line, J. Ball Sur. No. 1,478.
T.D. 800 ft., abnd.

Eckert & Sons' No. 1 Matt Keller, 215 ft. N line, 265 ft. W line, 300-ac. tract, Northington Sur., Sec. 8.
Drlg. rods 200 ft.

Gates & Hill's No. 2 Odem, 1,150 ft. W line, 435 ft. S line, 300-ac. tract, Castro Sur. No. 174.
S.D. 263 ft.

Letro Oil Corp.'s No. 1 E. B. Forrest, 1,928 ft. from N line, 1,908 ft. from E line of 640-ac. tract, Blk. 69.
Drlg. 263 ft.

Nueces County

Camp's No. 1 Richard King, Sec. 22.
Drlg. sand and sandy shale 4,250 ft.; sand 3,868-3,901 ft.; show gas sand 3,-984-90 ft.; show gas; 10-min. D.S.T. 3,-999-4,003 ft. on ¼ and 5/16-in. chokes; 525 lbs. W.P.; recovered dry gas.

J. K. Coulton's No. 1 Baldwin, 330 ft. N line, 485 ft. E lines, 85.8-ac. tract, Blk. 20, Russell Farm Tracts. Location.

La Jita Corp.'s No. 1 King, C SE¼ SW¼ Sec. 22.
Sand 5,130-48 ft., show oil, testing.

N. M. Wilson's No. 1 J. C. Bluntzer, SE cor. of tract, Casa Blanco Grant.
T.D. 1,390 ft.; S.D.

Real County

H. J. Heartwell et al's No. 2 Mrs. M. S. Perry, 250 varas from NW line, 775 varas from SW line of A.B.&M. Sur. No. 175. Drlg. sidetracked hole; T.D. 3,220 ft.; S.D.

San Patricio County

Masterson et al's (Tom Graham) No. 1 Wurzbach, 330 ft. from W line, 4,350 ft. from S line of C. C. Hornsby Sur.
Standing 5,521 ft.

Willis Storms' No. 1 Hobbs, 877 ft. S and 47 deg. 30 min. E from W corner of 50-ac. tract, N 42 deg., E 622 ft. to center of tract, Delgado Sur.
S.D. 3,500 ft.

Starr County

C. R. Borah's No. 1 A. Guerra, San Jose grant, 330 ft. from N and 150 ft. from E lines of Sec. 6 (NE part of county).
T.D. 3,517 ft., abandoned.

Pedernal Oil Co.'s No. 1 Hicks et al, 187 ft. from NW line, 318 ft. from NE line of Blk. 6, Pedernal Grant.
T.D. 2,210 ft.; S.D.

Pedernal Oil Co.'s No. 1 S. Welsh, 620 ft. NE cor. Blk. 3, Pedernal grant.
Drlg. 1,011 ft.

Travis County

C. B. Collard's No. 1 Blomberg, 150 ft. N line, 840 ft. E line, 99-ac. tract, McHenry Windburn Sur.
Drlg. 154 ft.

R. C. Hill's No. 1 S. A. Johnson, 1,473 ft. from SE line, 308 ft. from NE line of 80-ac. tract, John W. Haun Sur.
T.D. 1,100 ft.; T.A.

Bolling & Pew's No. 1 Langren Est., R. E. Lundgren 113-ac. tract, Samuel Kimbro Sur.
S.D. 670 ft.

G. A. Artz & Co.'s No. 1 Rolff, 454 ft. N line, 207 ft. W of tract, Hancock Sur.
T.D. 650 ft., shale; S.D.

J. E. Robertson's No. 1 Smith, 450 ft. NW cor. Lot 16, Kimbro Sur.
Drlg. 654 ft.

Webb County

Austin & Vernon's No. 1 Jeffries, 150 ft. NE line, 1,170 ft. SE line, Blk. 13, Sur. 1,453.
Set surface csg.; S.D.; T.D. 40 ft.

D. E. C. Oil Co.'s No. 1 Slater, C Blk. 50, Sur. 15, Arispe grant. Location.

Arthur H. Wray's No. 1 Geo. Stuempke, Share 1, Brewster pasture, Galan grant.
S.D. 1,125 ft.; new rig; to deepen.

E. T. Burton's No. 1 Billings, NE cor. of SW¼, Sur. 113. Location.

J. E. Neal's No. 1 Laurel Bros., 1,320 ft. of S and E lines, Sur. 1,119.
Rigging up.

Magnolia Pet. Co.'s No. 1 Volpe-Benevides, 330 ft. N and W lines, Sur. 385. Derrick.

Willacy County

Kingwood Oil Co.'s No. 1 Santa Rosa, Inc., 160 ft. from E line, 627 ft. from S line of Sec. 30, Blk. 16, Share 44, San Juan de Carricitas grant.
Drlg. 6,044 ft.

L. & S. Drlg. Co.'s No. 2 Armendiaz, near Rio Hondo, 7,798 ft. from E and W lines of Share 14.
Drlg. 5,307 ft.

Williamson County

H. B. and Otto Glass' No. 1 Albert, 3 miles SE of Taylor.
S.D. 214 ft.; shale.

H. L. Goff et al's No. 1 Albert Klotz, 1,700 ft. from N line, 150 ft. from E line of 100-ac. tract, W. Cartwright Sur.
S.D. 1,250 ft.

Kothmann et al's No. 1 Albert Krueger, John Bevil Sur. No. 56, 1,400 ft. from NW line, 1,060 ft. from SW line, 118-ac. tract.
S.D.; shale 550 ft.

Rue et al's No. 1 Chas. Bachmayer, 6 miles SE Taylor.
T.D. 800 ft.; csg. parted; S.D.

J. M. Russell's No. 4 Nelson Est., 550 vrs. NE line, 150 vrs. SE line, J. L. Justice Sur. No. 2.
T.D. 604 ft.; lime; S.D.

Zapata County

H. F. Crouis' No. 1 Ysagierre, 460 ft. S and W lines, Share 17, Por. 15.
Fishing 300 ft.

Humble O. & R. Co.'s No. 1 Dominguez, 12,785 ft. NE lines, 1,320 ft. SE line, Por. 31.
T.D. 4,879 ft., coming out with 600 ft. drill pipe, to resume drlg.

J. J. O'Hern's No. 1 Veliz, 330 ft. SE line, 3,420 ft. NE line, Blk. 2, Por. 27.
Spudding in.

Joe Palmer's No. 1 Emma A. Markrud, 150 ft. from NE and NW lines, Blk. 22, Sur. No. 616.
Drlg. 1,263 ft.

S. W. TEXAS PROVEN

Week Ending September 14

Carroll—Bastrop County

Fay Wilson et al's No. 1 Calahan, 7,700 ft. from NW line, 350 ft. from SW line, Mays Sur.
Drlg. 835 ft.

Bateman—Bastrop County

Batts & Jarnson's No. 1 Mrs. Annete Harris, 576 vrs. (1,600 ft.) NW line, 630 vrs. (1,750 ft.) SW line, John Maxmilian Sur. 22.
T.D. 2,300 ft.; fishing for parted tubing.

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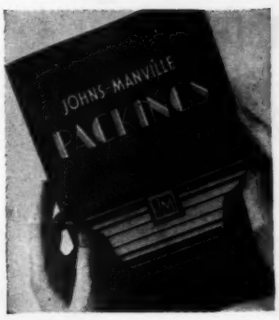

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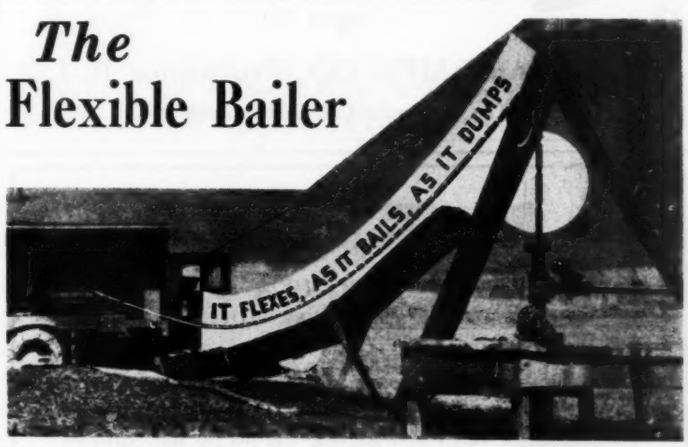

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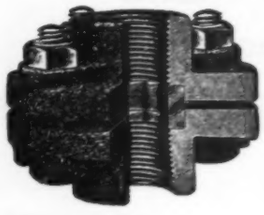

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Caesar—Bee County

Caesar Oil Co.'s No. 6 R. E. Miller, N offset to Commodor's No. 4 Grissom. Location.

Commodor Oil Co.'s No. 4 Grissom, 750 ft. W line, 150 ft. N line, 771.9-ac. tract, McFarley Sur. Comp. 300 bbls., sand 3,029-38 ft.

El Toro Oil Co.'s No. 1 J. J. Grissom, 150 ft. from N and W lines of 10-ac. tract, P. B. Early Sur. Spudded; no report.

Luling O. & G. Co.'s No. 3 Hudman, 980 ft. E line, 600 ft. N line, 50-ac. tract. Comp. 432 bbls. on ⅝-in. choke, T.D. 3,064 ft., T.D. 150 lbs., C.P. 500 lbs.

Luling Oil & Gas Co.'s No. 4-A Hudman, 450 ft. SW No. 3-A. Location.

McAllister Fuel Co.'s No. 3 Vaughn, 1,150 ft. E line, 150 ft. N line, lease. Comp. 130 bbls. on ¼-in. choke, sand 3,036-48 ft.

Swiger et al's No. 4 Gardner, W offset to Vaughn producer. Moving in material.

Dirks—Bee County

Dirks et al's No. 5 Roth, 330 ft. N line, 590 ft. E line of lease, Sec. 7. Drlg. 2,520 ft.

Otis Dyer's No. 1 Hall, 330 ft. SW and SE lines 59-ac. tract, Thos. J. Butler Sur. Drlg. 3,015 ft.

Heyser, Heard & Walton's No. 8 Young, 390 ft. W of No. 7. Rigging up.

Humble O. & R. Co.'s No. 4 Shellenberger, 162.7-ac. tract, Uranga grant. Sand 3,879-83 ft., 20 min. D.S.T., showed 780 ft. oil, 150 ft. oily mud, 10 ft. salt water, W.P. 35 lbs.

Mills Bennett's No. 1 Rapp, 330 ft. N & E lines, 40-ac. tract, Dugat Sur. Comp. 12 bbls. per hour, T.D. 3,924 ft.

Texas Co.'s No. 6 Young, 1,285 ft. W line, 925 ft. S line, Young Sur. Comp. 22 bbls. per hour on ¼-in. choke.

Ray—Bee County

Dirks Bros.' No. 3 Ray, 660 ft. E of No. 2 and W road to Pettus in SW¼ of Sec. 7, 1,800 ft.; no report.

L. W. Littlejohn's No. 1 J. B. Borroun, 150 ft. out of SW cor. of 234-ac. tract, Wm. Gell Sur. Sand 3,324-30 ft. tested salt water, coring 3,337 ft.

Magnolia Pet. Co.'s No. 3 Ray, 330 ft. S and W lines lease, W. B. Blanchard Sur. Set csg. 3,923 ft., W.O.C.

Simms Oil Co.'s No. 4 Ray, 330 ft. N line, 990 ft. E line, 80-ac. tract, W. B. Blanchard Survey. M.I.M.

Simms Oil Co.'s No. 2 Ray, 660 ft. W No. 2 Ray. Comp. 21 bbls. per hr. on ¼-in. choke, T.P. 220 lbs.; C.P. 350 lbs.; sand 3,943-48 ft.

Simms Oil Co.'s No. 3-A Campbell, 427 ft. S line, 330 ft. E line, N 20-ac. tract, Lots 20 and 21, Bucher Subd., W. B. Blanchard Sur. Location.

Simms Oil Co.'s No. 1-B Campbell, 150 ft. S and E lines, Lot 19, Bucher Subd., W. B. Blanchard Sur. Location.

Worth Oil Co.'s No. 3 Rutledge, 150 ft. out of SW cor., 300 ft. S of No. 2, 15-ac. tract, A. Hadley Sur. Spudded in; S.D.

R. J. Worthington's No. 1 Chestnut, 330 ft. NW cor. 40-ac. tract, B. O. Hadley Sur. Spudded in; S.D.

Tuleta—Bee County

Highland Oil Co.'s No. 4 Campbell, 40-ac. tract, B.&B. Sur. Spudded in.

Illinois Pet. Co. et al's No. 1 Rapp, 330 ft. E line, 375 ft. NE line, 106-ac. tract, Dugat Sur. T.P. 320 lbs., C.P. 350 lbs., sand 3,943-48 ft.

Southwest Exploration Co.'s No. 1 Heyden & Bruckham, C of farm tract, 330 ft. from N and W lines of Sec. 20, Uranga grant. Coring sand 3,842 ft., oil show.

Stanolind Oil & Gas Co.'s No. 1 Walton, 330 ft. W line, 715 ft. N line, 100-ac tract, Sec. 21, Ragley Subvd., Urango Grant. Location.

Sun Oil Co.'s No. 2 Page, 330 ft. SW line, 990 ft. SE line, Young Sur. Drlg. 2,832 ft., T. Pettus sand, 2,810 ft.

The Texas Co.'s No. 7 Young, 660 ft. E No. 6 Young, Butler Sur. Drlg. 2,752 ft.

Gas Ridge—Bexar County

American Gas Co.'s No. 5 Oliver, Rodriguez Sur. Standing 2,902 ft.

Von Ormy—Bexar County

Jack Crouch's No. 2 Barragan, 550 ft. SW line, 150 ft. NW line, Juan Barragan 160-ac. tract, J. S. Simpson Sur. Sand 600-50 ft.; T.D. 696 ft.; running tubing.

Richard Oil Co.'s No. 2 Weilbacher, 162 vrs. E line, 2,650 ft. S line, Mrs. Z. A. Mann 100-ac. tract, S. McCulloch, Jr. Sur. 54. Fishing 500 ft.

Umburn & Trawalter's No. 5 Wm. Biel, 450 ft. SW line (river), 150 ft. NW line Wm. Biel 160-ac. tract, John S. Simpson Sur. No. 59. Drlg. 490 ft.; shale.

Palo Blanco—Brooks County

United Prod. Co.'s No. 1 Kathleen Jones Hocker, 1,300 ft. SW of No. 2, 1,636 ft. from N line of Los Megneijes de Palo Blanco grant. Coring 4,330 ft.

Bruner—Caldwell County

Dawn Oil Corp.'s No. 2 Floyd Tiller. Derrick.

Dunlap—Caldwell County

Ballard & Witting et al's No. 1 Mrs. A. C. Bridges et al, 650 ft. from NW line, 450 ft. from NE line of Soloman Seale Sur. Set csg. 2,172 ft., T.D. 2,204 ft., standing.

Cameron County

J. E. Anderson's No. 10 Browne, 5,000-ac. Blk. 397, Santa grant. Drlg. 1,650 ft. Kingwood & Daniels' No. 1 Port Isabel, Share 30. Drlg. 1,650 ft.

Driscoll—Duval County

Continental Oil Co.'s No. 6-A Sevier, 2,000 ft. W, 1,000 ft. S, No. 5-A Sevier, Sur. 447. Spudded in.

Government Wells Pool—Duval County

Byrd Oil Co.'s No. 8 Wright, 330 ft. N and E lines, Sur. 101. Abnd. location.

Highland Oil Co.'s No. 1 C. W. Hahl, Sur. 61. Rigging up.

P. K. Kelly's No. 1 Turney, 200 ft. E line, 1,100 ft. N line, Sur. 8. Drlg. 382 ft.

Magnolia Pet. Co.'s No. 1 D.C.R.C., 330 ft. S and E lines, Sur. 100. Drlg. plugs 2,135 ft.

Magnolia Pet. Co.'s No. 4 Herbst, 990 ft. N line, 330 ft. W line, Sur. 70. Sand 2,746-55 ft.; comp. 140 bbls. in 14 hrs. thru ⅝-in. choke.

Hoffman—Duval County

Sun Oil Co.'s No. 1 Sutherland, 990 ft. S and W lines, Sur. 122. Location.

Reynosa Oil Co.'s No. 1 Meek, 1,650 ft. N line, 330 ft. E line, Sur. 114. Location.

Rogers O. & G. Co.'s No. 1 Hoffman, 330 ft. SE line, 2,970 ft. SW line, Sur. 118. Gas sand 2,755-80 ft.; to blow well; C.P. 800 lbs.

Kohler—Duval County

California Co.'s No. 1 Kohler, 330 ft. N line, 2,597 ft. W line tract. Location.

Loma Novia—Duval County

Bridwell Oil Co.'s No. 2 Hubbard, 330 ft. W line, 1,650 ft. N line, Sur. 71. Location.

Bridwell Oil Co.'s No. 3-B Hubbard, 330 ft. N and E lines, Sur. 75. Comp. 133 bbls. open tubing, sand 2,682-88 ft.

Buchanan & Blanco Oil Co.'s No. 2-B Ruiz, 330 ft. E line lease, 660 ft. N No. 3 Ruiz, Sec. 73, G. Ruiz Estate. Comp. 2½ bbls. per hour.

R. DeLange's No. 2 B.C.C., 330 ft. S and E lines, 120-ac. tract, Sec. 76. Drlg. 2,464 ft.

Duval Oil Co.'s No. 3 Moody, NW cor. NE 40-ac., Sur. 76. On sand, running tubing.

Frank Gravis No. 2 Flodin, 330 ft. N and E lines, 40-ac. tract, Sur. 78. Location.

Frank Gravis' No. 2 Byland, 330 ft. S and E lines, Blk. 2, Sur. 78. Location.

Claude Hamil's No. 2 Ruiz, 330 ft. from S and E lines of NW 160-ac. tract, Sur. 41. Cmtd. csg.; W.O.C.

Hamill, Smith & Ogden's No. 7 Hubbard, 330 ft. S & W lines, NW¼, NW¼ Sec. 77, set. csg., sand 2,597-2,620 ft., W.O.C.

Hamill, Smith & Ogden's No. 8 Hubbard, 330 ft. N & W lines, NW¼, NW¼, Sec. 77. Sand 2,597-2,615 ft., set csg. W.O.C.

Hamill, Smith & Ogden's No. 9 Hubbard, 330 ft. N & E lines, NW¼, NW¼, Sec. 77. Location.

Hamill, Smith & Ogden's No. 13 Hubbard, 330 ft. N and E lines, NE¼, SE¼, Sec. 77. Derrick.

Hamill, Smith & Ogden's No. 14 Hubbard, 330 ft. S and E lines, NE¼, SE¼, Sec. 77. Rigging up.

Highland Oil Co.'s No. 4 Hubbard, 1,650 ft. N lines, 330 ft. W line, 320-ac. tract, Sec. 72. Location.

Humble O. & R. Co.'s No. 2-D Wood-Welden, 990 ft. N line, 2,928 ft. E line, Sur. 72. Drlg. 1,286 ft., sticky shale.

Chas. Kleiner's No. 1 Ruiz, 1,320 ft. N line, 1,650 ft. E line, Sur. 125. Drlg. 655 ft.

Magnolia Pet. Co.'s No. 4-B Magnolia-Hahl, 330 ft. N and W lines, NW¼, NE¼, Sur. 76. Location.

Shell Pet. Corp.'s No. 6 Hubbard, 330 ft. W line, 1,650 ft. S line, 320-ac. tract, Sur. 77. Drlg. 550 ft. sand.

Shell Pet. Corp.'s No. 5 Hubbard, 320-ac. tract, Sur. 77. Comp. 24 bbls. per hour, 25 grav. jetting, C.P. 300 lbs.

Stieren Oil Co.'s No. 4 Wright, 990 ft.

N and E lines, 419.9-ac. tract, Blk. 72, S.K.&K. Sur.
Comp. 50 bbls. per hr. on ⅝-in. choke.

Sun Oil Co.'s No. 1 Hubbard, NW cor. SE 174-ac. tract, Sec. 84.
Location.

Sun Oil Co.'s No. 1 Hubbard, 330 ft. N and W lines, 174-ac. tract, Sur. 84.
Location.

The Texas Co.'s No. 9 Vela, 2,310 ft. E line, 330 ft. S line, 327-ac. tract, Sur. 42.
Rigging up.

The Texas Co.'s No. 3 Wendt, 660 ft. W No. 1 Wendt, 330 ft. N line, 458-ac. tract, Sur. 68.
Location.

Seven Sisters—Duval County

Atlantic Oil Co.'s No. 2 J. F. Welder, 330 ft. W line, 1,000 ft. N line, Sur. 386.
Set csg., W.O.C., sand 2,493-2,514 ft.

Buchanan & Blanco Oil Co.'s No. 1 Welder, 330 ft. N and E lines, 82.1-ac. tract, Sec. 385.
M.I.M., drlg. water well.

Dulci-Henderson-Harvey's No. 2 Serna, 330 ft. W line, 990 ft. N line, Sur. 384.
Sand 2,484-90 ft., set csg. W.O.C.

Humble Oil & Refg. Co.'s No. 2 Smith, 1,580 ft. N line, 330 ft. E line, 531.7-ac. tract, Sec. 382, B.S.&F. Sur.
Rigging up.

Mid-Continent Pet. Corp.'s No. 1 Serna Jr., 330 ft. N of W lines of S½ of N½ Sur. 384.
Spudded in.

Santa Clara Oil Co.'s No. 14 Wood-Welder, 1,650 ft. N line, 660 ft. E line, 160-ac. tract, Sec. 385, J. Poitevent Sur.
Drlg. shale 500 ft.

Shell Pet. Corp.'s No. 4 Hubbard, 989 ft. E line, 2,310 ft. S line, Sur. 77.
Set surface csg.; W.O.C.

North Pettus—Goliad

Magnolia Pet. Co.'s No. 9 Porter, B.&B. Sur.
Comp. 40 bbls.; T.D. 3,695 ft.; preparing to shoot well.

Darst Creek—Guadalupe County

Burrows et al's No. 1 Lampke, 150 ft. N and E lines, Johns 140-ac. tract, Green DeWitt Sur. No. 13.
Location.

Mercedes—Hidalgo County

Union Sulphur Co.'s No. 5 American Rio Grande L. & I. Co., 230 ft. N line, 350 ft. W line, Tract 2,082.
Coring 6,952 ft.

Union Sulphur Co.'s No. 4 A.R.G.L.&I.C., 400 ft. N and W lines, Lot 1, Blk. 99, 1½ miles SW discovery well.
Set. csg. 7,757 ft., T.D. 7,790 ft.

Samfordyce—Hidalgo County

J. H. Anderson's No. 1 Guerra, 232 ft. N line, 285 ft. W line, Tract 254, Por. 39.
Location.

Cortez Oil Co.'s No. 2-C Smith, 230 ft. from N line, 690 ft. from W line of NE 40 acres of Tract B-3, Porcion 41.
Location.

Cortez Oil Co.'s No. 3-C Smith, 230 ft. from N line, 1,150 ft. from W line of NE 40 acres of Tract B-3, Porcion 41.
Location.

Cortez Oil Co.'s No. 1 Guerra, 230 ft. S and E lines, Tract 12, Porcion 41.
Drlg. 1,420 ft.

Ralph E. Fair, Inc.'s (Kingwood) No. 7 Guerra, 450 ft. S line, 600 ft. E line, Tract 254, Por. 39.
Rigged up.

Ralph E. Fair, Inc.'s (Kingwood) No. 4 Guerra, 165 ft. S line, 1,150 ft. E line, Share 12, Por. 41.
Location.

Ralph E. Fair, Inc.'s (Kingwood) No. 1 Seabury, 150 ft. NE cor. 10 acres, Tract 256, Por. 38.
Location.

Ralph E. Fair, Inc.'s (Kingwood) No. 4 J. Lawrence, 300 ft. from N line, 150 ft. from W line of W 40-ac. tract 274, Por. 39.
No report.

Harrison, Davis & Bishop's No. 4 Guerra, Tract 12, Porcion 41.
Set csg. 2,753 ft.; W.O.C.

Harrison, D. D., Oil Co.'s No. 4 Lula George, 230 ft. N line, 590 ft. W line, S½ Tract 13, Por. 41.
Testing 2,754-58 ft.

Mundy & Sons' No. 1 Guerra, 853 ft. W line, 1,275 ft. N line, Tract 12, Por. 41.
Top sand 2,890 ft.; testing.

H. J. Porter's No. 2 C. E. Smith, N end of S½ of tract in Tract 278, Porcion 40.
Spudded; S.D.

E. Powell's No. 2 Lula George, 230 ft. S and E lines, 20.11-ac. tract, Tract 13, Por. 41.
Location.

Rogers O. & G. Co.'s No. 2-B Guerra, 150 ft. S and E lines, 12.5-ac. tract, Por. 39.
Set sur. csg.; W.O.C.

Lucas—Live Oak County

Houston Oil Co.'s No. 1 Frederick, 330 ft NW and SW lines, Sec. 16, Jane Curry Sur. No. 8.
No report.

Houston Oil Co.'s No. 2 Frederick, 330 ft. SW and SE lines, Sec. 19, Jane Curry Sur. No. 16.
Spudded in.

Houston Oil Co.'s No. 3 Frederick, 330 ft. NW and NE lines, Sec. 9, Jane Curry Sur. No. 8.
No report.

Smith & Storey's No. 1 Dinero townsite, 660 ft. E of No. 1 Frederick, Jane Curry Sur.
T.D. 5,270 ft.; S.D.

Three Rivers—Live Oak County

Benco Oil Corp.'s No. 1 E. Mahoney, 155 ft. from NW line of J. H. Harvey tract, 3,109 ft. SW of highway in Mark Killelly Sur.
S.D. 78 ft.

Jacob Pool—McMullen County

Loma Oil Co.'s No. 41-A Jacob, 660 ft. N No. 40-A.
Spudded in.

Loma Alta—McMullen County

Loma Oil Co.'s No. 1 Hagist, NE cor. of NW¼ of Sur. 108.
Sand 2,190-92 ft.; 2,215 ft.; no report.

Hondo—Medina County

Callahan & Robert's No. 1 Ray Taylor, 1,450 ft. NS line, 220 ft. EW line, Sur. No. 135.
Drlg. 253 ft.

Saxet—Nueces County

Holliday et al's No. 2-A Smith, Sur. 35.
Sand 5,785-92 ft. csg. 5,792 ft., T.P. and C.P. 2,275 lbs., flowing into pits.

Holliday et al's No. 2-B Smith, 1,630 ft. W line, 394 ft. cen. Rd., Sur. 35.
Set csg. 4,720 ft.; recmtg.

Holliday et al's No. 2-A Stillwell, 880 ft. N line, 595 ft. W line, 63-ac. tract, Farm Lot No. B-31.
T.D. 4,876 ft., resetting liner.

Houston Oil Co.'s No. 2 Isensee, 330 ft. S and E lines, 40-ac. tract.
Location.

Houston Oil Co.'s No. 4 Walton, 330 ft. EW line, 1,560 ft. NE line.
Drlg. shale and lime 2,933 ft.; no report.

Houston Oil Co.'s No. 5 Rand Morgan, 330 ft. N line, 1,694 ft. E line, 484.1-ac. tract, Sec. 7, Range 5, R.O. Sur.
Comp., no gauge, sand 4,860-62 ft.

Houston Oil Co.'s No. 6 Rand Morgan, 330 ft. N line, 660 ft. W No. 5.
Derrick.

Magnolia Pet. Co.'s No. 3 Baldwin, 660 ft. S of No. 1 Sanders.
Drlg. sticky shale 3,417 ft.

Magnolia Pet. Co.'s No. 2 Baldwin, 330 ft. W and S lines 1,005-ac. tract, B.S.&F. Sur. No. 165.
Drlg. hard shale 4,525 ft.

Magnolia Pet. Co.'s No. 2 Sanders, 330 ft. SW cor. 110-ac. tract, Sec. 165, B.S.&F. Sur.
Derrick.

Magnolia Pet. Co.'s No. 2 W. W. Walton, 330 ft. from E line, 289 ft. from S line of 92.11-ac. tract, Enrique Villareal Sur.
Location.

Richardson & Thomas' No. 1 Page Bros.
Drlg. 4,508 ft.

Shell Pet. Corp.'s No. 1 Flato, 330 ft. W line, 500 ft. Tex.-Mex. R.R., 40-ac. tract No. 1, Dunn Sur.
Coring brittle sandy shale 4,942 ft.

Shell Pet. Corp.'s No. 1 Isensee, 330 ft. S and E lines 136-ac. tract, C. Land Sur.
Set csg. 4,849 ft., W.O.C., 10 min. D.S.T. at 4,842-60 ft. with W.P. 25 lbs.
Made 1,600 ft. pipe line oil.

Shell Pet. Corp.'s No. 2 Isensee, 330 ft. S and W lines of 136-ac. tract, C. Land Sur.
Rigging up.

Smith et al's No. 1 Walton, NW cor. 92.11-ac. tract, Enrique Villareal Sur.
Reconditioning and testing.

Southern Minerals Corp.'s No. 6 Ocker, 330 ft. S and E lines, 95-ac. tract, Sec. 8, Sur. 418.
Set csg. 4,872 ft.; running screen.

Southern Minerals' No. 2-B Walton, 330 ft. E line, 270 ft. S line, 8-ac. lease of 16-ac. tract, 3 miles SE Viola townsite.
Derrick.

Texon & Lucey's No. 1 Vance, 1,320 ft. N line, 330 ft. E line, 225-ac. tract, Sec. 404.
T.D. 6,080 ft., P.B. 3,500 ft.

Violet Oil Co.'s No. 1 Gallagher, 330 ft. S line, 990 ft. W line, 171-ac. tract, J. H. Smith Sur. 25.
Saturated oil sand 4,065-70 ft., 10 min. D.S.T., no pressure, 300 ft. oil.; setting csg.; W.O.C.

Warner-Quinlan's No. 1 Isensee, 125 ft. S line, 330 ft. W line, Blk. 1.
Sand 4,860-65 ft., set csg.; W.O.C.

Warner-Quinlan's No. 2 Isensee, 330 ft. S and E lines, Blk. 1.
Location.

Plymouth—San Patricio County

Heep Oil Corp.'s No. 9-E Welder, 2,332 ft. N line, 1,399 ft. E line, N 400-ac. tract, Sec. 46, R. Montgomery Sur.
T.D. 5,651 ft., reaming to 5,640 ft. for D.S.T.

Heep Oil Corp.'s No. 10-E Welder, 3,265 ft. N line, 1,399 ft. E line, N 400-ac. tract, Sec. 46, R. Montgomery Sur.
Rigged up.

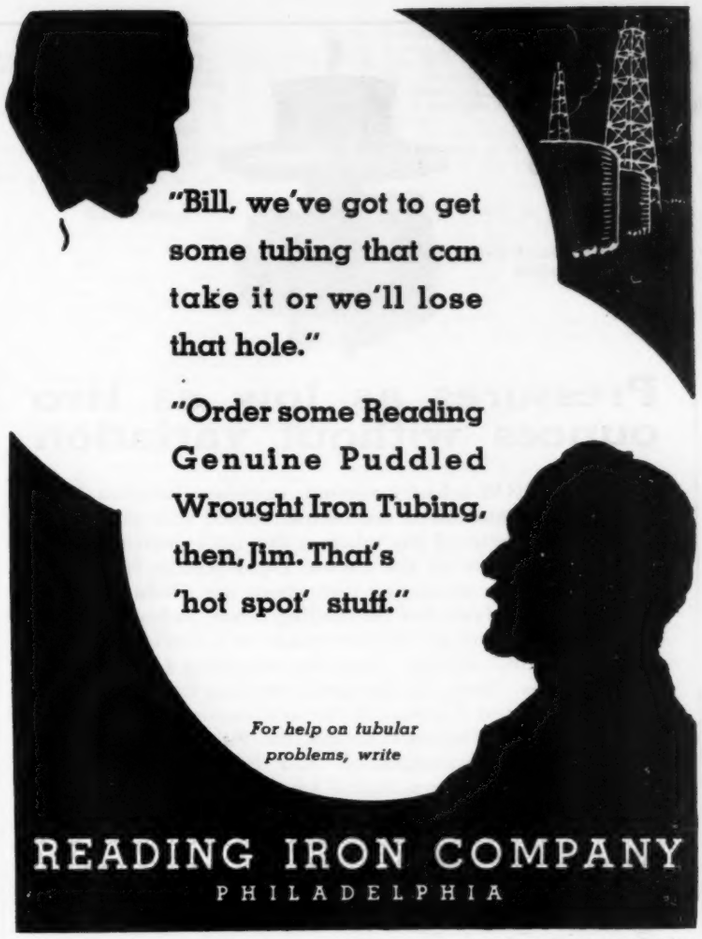
Heep Oil Corp.'s No. 2-F Welder, 466 ft. S line, 466 ft., Chiltipin Creek, 200-ac. tract, Sec. 46.
Drlg. sticky shale 2,000 ft.

Magnolia Pet. Co.'s No. 2 Corpus Christi, 660 ft. S of No. 1, H. H. Hunter Sur.
D.S.T. 5,603-11 ft., 375 lbs. W.P. 8 min., showed dry gas; drlg. to 5,614 ft. to test again.

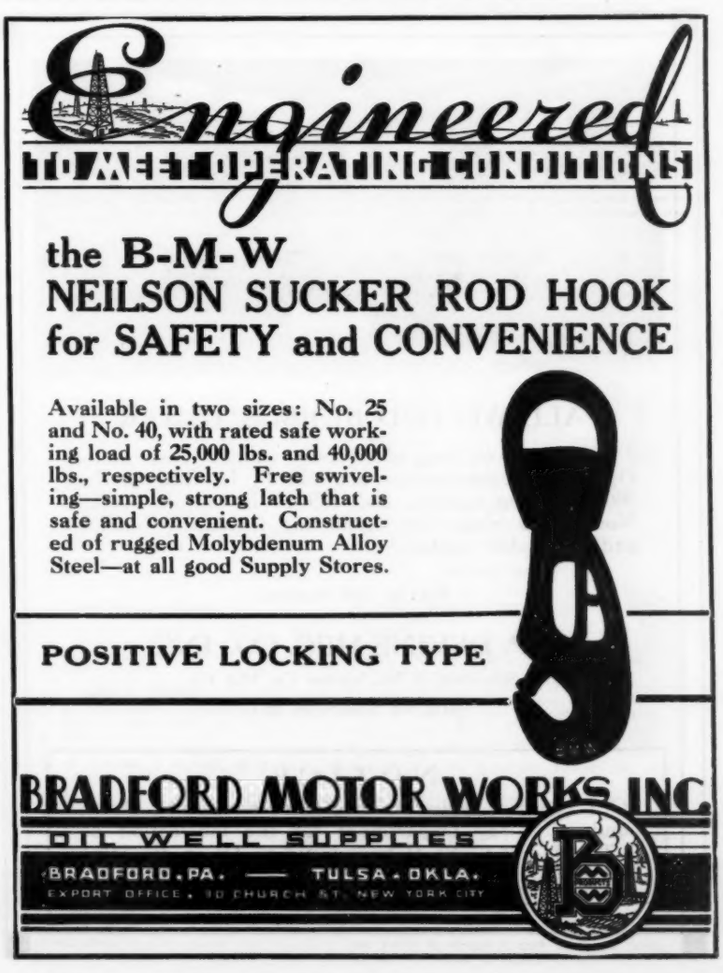
Plymouth Oil Co.'s No. 15-C Welder, 2,334 ft. N line, 1,400 ft. W line, Sec. 48.
M.I.M.

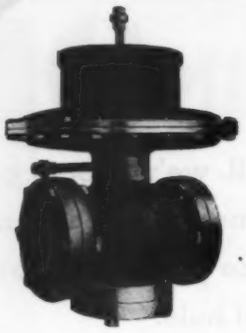
Plymouth Oil Co.'s No. 16-C Welder, 1,399 ft. W line, 1,399 ft. N line, Sec. 48.
M.I.M.

Plymouth Oil Co.'s No. 10-C Welder, 1,500 ft. from W line, 266 ft. from N line, Sec. 48.
Sand 5,624-40 ft.; gas; cut liner; coming out of hole to recondition.


"Bill, we've got to get some tubing that can take it or we'll lose that hole."
"Order some Reading Genuine Puddled Wrought Iron Tubing, then, Jim. That's 'hot spot' stuff."
For help on tubular problems, write
READING IRON COMPANY
PHILADELPHIA

SCIENCE AND INVENTION HAVE NEVER FOUND A SATISFACTORY SUBSTITUTE FOR GENUINE PUDDLED WROUGHT IRON


Engineered
TO MEET OPERATING CONDITIONS
the B-M-W
NEILSON SUCKER ROD HOOK
for SAFETY and CONVENIENCE
Available in two sizes: No. 25 and No. 40, with rated safe working load of 25,000 lbs. and 40,000 lbs., respectively. Free swiveling—simple, strong latch that is safe and convenient. Constructed of rugged Molybdenum Alloy Steel—at all good Supply Stores.
POSITIVE LOCKING TYPE
BRADFORD MOTOR WORKS INC.
OIL WELL SUPPLIES
BRADFORD, PA. — TULSA, OKLA.
EXPORT OFFICE, 30 CHURCH ST., NEW YORK CITY



Fulton Dead-Weight Regulator

Pressures as low as two ounces without variation

A UNIFORM delivery pressure anywhere between 2 and 6 ounces as desired can be maintained with either natural or manufactured gas taken at any inlet pressure up to 15 pounds, by use of the Fulton Dead-Weight Regulator. Pressure will be unvarying throughout the whole range of flow. This regulator has no stuffing boxes, is highly sensitive as a result, and can be used either as a district governor or for individual service. Ideal for regulating gas pressures to gas engines. Sizes 3 inches and over have flanged connections, those below 3 inches, screw connections. For relieving line pressures below 6 ounces, the Fulton Dead-Weight Relief Valve is recommended. C-F Regulators for every requirement of pressure control have been approved by the gas industry for over fifty years. Catalog on request.

The Chaplin-Fulton Manufacturing Co.

28-40 Penn Avenue **Pittsburgh, Pa.**

ALL WELDED BUBBLE TOWER

7′ 6″ dia. by 68′ long electrically welded construction. Operating temperatures are 400°F. in feed section, 300°F in top section, and 375°F. in bottom section. Note angle rings for supporting insulating blankets and the basket ladder.

Send us your Inquiries.

J. P. DEVINE MFG. CO., INC.

Subsidiary of Mt. Vernon Car Mfg. Co.

MOUNT VERNON, ILL.

NOTICE

Our facilities include a large Stress-relieving Oven, and an X-ray Department for the fabrication of Class I and Class II vessels up to 11′ in diameter and 100′ in length.

Plymouth Oil Co.'s No. 11-C Welder, 933 ft. N, 167 ft. W, No. 5-C Welder. Comp., av. well, C.P. 1,300 lbs., T.P. 800 lbs.

Plymouth Oil Co.'s No. 12-C Welder, 933 ft. S line, 1,400 ft. W line, Sec. 49. T.D. 5,643 ft.; set 7-in. csg. 5,632 ft.; Comp. gas; killing to recondition; C.P. 2,250 lbs.

Plymouth Oil Co.'s No. 13-C Welder, 933 ft. N, 933 ft. W No. 3-C Welder. Top oil sand 5,502 ft.; ran 5,456 ft. 2-in. tubing, C.P. 50 lbs.; T.P. 500 lbs.; D.S.T. showed est. 300 bbls.

Plymouth Oil Co.'s No. 14-C Welder, 466 ft. W line, 300 ft. from Chiltipin Creek and 1,458 ft. SE No. 8-C. Drlg. shale and lime 4,255 ft.

Sun Oil Co.'s No. 1 Stone, offset to Magnolia No. 1 Corpus Christi Bank. Location.

Los Olmos—Starr County

H. C. Horton's No. 2 Sanchez, 150 ft. NW cor. Blk. 3, Share 72, Porcion 72. Tested oil and S.W. 501-05 ft.; drlg. deeper.

Ed Linberg's No. 7 Bass, 1,500 ft. from W line, 1,675 ft. from N line of Share 6, Porcion 75. S.D. 500 ft.

Placetas—Starr County

Hughston Oil Co.'s No. 1-A Gregg-Wood, S end of Por. 84; replacement well, 990 ft. S of State Highway No. 4. T.D. 3,370 ft.; abandoned.

Rio Grande—Starr County

Hiram Reed's No. 7 D.&C., 480 ft. S line, 575 ft. E line, Blk. 3, Tract 21, Por. 80. M.L.M.

Hiram Reed's No. 5 D.&C., 475 ft. from E line, 185 ft. from N line of Blk. 6, Tract 21, Por. 80, Jurisdiction of Camargo. Moving in material.

Hiram Reed's No. 1-A D.&C., Blk. 2, Tract 21, Por. 80. T.D. 3,250 ft.; D.&A.

Houston Oil Co.'s No. 5 Morgan, Sec. 7, Range 5. Derrick.

Sioux & Heard's No. 3 Goodrich, 450 ft. N and W lines, Blk. 5, Tract 5, Por. 81. M.L.M.

W. W. Zimmerman's No. 2 D.&C., 1,122 ft. W, 150 ft. from S line of Blk. 1, Tract A-77, Porcion 81. Set csg. 1,458 ft.; standing.

Samfordyce—Starr County

Henshaw & Rothert's No. 2 Seabury, 658 ft. N line, 248 ft. W lines, 15-ac. tract, Tract 256, Por. 38, Jurisdiction of Reynosa. Sand 2,804-09 ft.; set csg. 2,804 ft.; drlg. plugs.

Phillips & Barnsdall's No. 1 Yturria Land & Livestock Co., 330 ft. S and E lines, 160-ac. tract, Por. 190. Comp. 112 bbls. through 5/32-in. choke; C.P. 700 lbs.; T.P. 260 lbs. Cleaning.

Skelly Oil Co.'s No. 4 Seabury, 219 ft. N line, 248 ft. E line, E 15-ac., NW 30-ac., S 263.5-ac., Tract 256, Por. 38, J. of Reynosa. Rigged up.

Skelly Oil Co.'s No. 5 Seabury, 658 ft. N line, 248 ft. E line, E 15-ac., NW 30-ac., S 263.5-ac., Tract 256, Por. 38, J. of Reynosa. Set sur. csg.; W.O.C.

Skelly Oil Co.'s No. 6 Seabury, 219 ft. S line, 248 ft. E line, E 15-ac., NW 30-ac., S 263.5-ac., Tract 256, Por. 38, J. of Reynosa. Location.

Bruni—Webb County

Associated Oil Co.'s No. 7 Bruni, 330 ft. from NW line, 660 ft. NE of No. 5, Blk. 7, M. Arispe grant. Location.

Highland Oil Co.'s No. 12 A. M. Bruni Estate, 520 ft. E of No. 6, 330 ft. from S line of 200-ac. tract, M. Arispe grant. Location.

O. W. Killianis' No. 40 Bruni, Blk. 50, Sur. 15. Spudded in.

Laurel—Webb County

South Texas Oil Co.'s No. 1-A Laurel, 317 ft. S line, 83 ft. E line, Blk. 2, Sec. 249, C.C.S.D.&R.G.N.G. Sur. Coring 2,603 ft.

West Cole Pool—Webb County

Jack & Jim Oil Co.'s No. 1 S. Benevides, cen. Blk 155, Myrtle Hale Subvd., M. Arispe Grant. Derrick.

James P. Goslin's No. 2 Benavides, 347 ft. NW line, 313 ft. SW line, Blk. 220. Drlg. 1,370 ft.

Magnolia Pet. Co.'s No. 3-V Hahl, Sur. 76. Completing 2,661 ft.

Magnolia Pet. Co.'s No. 4-V Hahl, Sur. 76. Location.

Magnolia Pet. Co.'s No. 4-X Benavides, 347 ft. NW line, 313 ft. SW line, Blk. 156. Location.

Magnolia Pet. Co.'s No. 1 Seacord-Benavides, 330 ft. N and NW lines, Blk. 8, Subd. Sur. 174. Set surface csg.

R. E. Misener's No. 1 Garza, 320 ft. E line, 200 ft. S line, NW¼ SE¼ Sur. 457. Rigged up.

James P. Nash's No. 3 Benavides, 347 ft. NW line, 313 ft. SW line, Blk. 157. Drlg. 2,356 ft.

The Texas Co.'s No. 5 Brennan-Benevides, 160-ac. tract, Blk. 287, M. Arispe Grant. Drlg. 1,514 ft.

Texas Co.'s No. 3 Benavides, 410 ft. SW line, 296 ft. NW line, Blk. 325. Location.

Lopez—Webb County

C. F. Lewis' No. 1 Lopez, 330 ft. N line, 990 ft. W line, Sur. 110. Location.

Mills Bennett's No. 1 M. Lopez, 330 ft. N and E lines, 100-ac. tract, Sec. 73, Share 6-B, C.C.S.D.&R.G.N.G. R.R. Co. Sur. Location.

Mills Bennett's No. 4 J. Lopez, 1,997 ft. W line, 2,574 ft. S line, Sur. 73. Comp. 20 bbls. per hr. and 1,000,000 ft. gas, T.D. 2,146 ft.

Mills Bennett's No. 5 J. Lopez, Sur. 73. Spudded in.

G. G. Mortimer's No. 2-M Lopez, 1,650 ft. W line, 1,333 ft. S line, Sur. 73. Top sand 2,139 ft.; T.D. 2,155.5 ft.; D.S.T. showed 900 ft. oil in 12 min.; csg. set 2,144.5 ft.; drlg. plug.

G. G. Mortimer's No. 4 G. Lopez, 1,997 ft. W line, 2,574 ft. S line, Sur. 73. Location.

O'Hern—Webb County

Magnolia Pet. Co.'s No. 13 Brennan-Benavides, center Blk. 259. Location.

Magnolia Pet. Co.'s No. 6 G. Benavides, center Blk. 221. Comp. 200 bbls. on ¼-in. choke.; T.D. 2,758 ft.

Magnolia Pet. Co.'s No. 7 G. Benavides, center Blk. 188. Location.

Magnolia Pet. Co.'s No. 2 G. Benavides, C Sec. 186, M. Arispe grant. Rigging up.

Magnolia Pet. Co.'s No. 1 S. Benavides, 347 ft. NW line, 313 ft. SW line, Sec. 220. Drlg. 2,757 ft.

Magnolia Pet. Co.'s No. 4 G. Benavides, 313 ft. SW line, 347 ft. SE line, Blk. 223. Rigged up.

Noack—Williamson County

Coffield & Lanning's No. 3 Heap, 200 ft. from N line, 225 ft. from W line of tract in White Sur. Location.

R. R. Ogden's No. 1 Matteck, 150 ft. N and W lines of 108.5-ac. tract in White Sur. Location.

Byersville—Williamson County

Taylor Ref. Co.'s No. 2-B Walter Heap, 450 ft. N line, 750 ft. W line, Heap lease. S.D. 1,065 ft.

Taylor Ref. Co.'s No. 9-A Sladek, H. White Sur., 150 ft. from NE line, 1,200 ft. SE line (creek). T.D. 700 ft.; shale; S.D.

Escobas—Zapata County

G. E. Glasco's No. 1 Haynes, 200 ft. NW and SW lines Blk. 7, Haynes Subd., Comitas & Villa grants. T.D. 180 ft.; abandoned.

S.R.C. Oil Corp.'s No. A-15 Trevino, 200 ft. W line, 520 ft. S line, Blk. 8, Sur. 66. Drlg. shale 1,122 ft.

Texas Co.'s No. 76 Whitehead, 23,940 ft. SW line, 5,915 ft. SE lines, Cerrito Blanco grant. Location.

PRODUCTION OF CRUDE PETROLEUM BY DISTRICTS

(Thousands of barrels of 42 gallons)

	July, 1935		June, 1935		Jan.-July,	Jan.-July,
	Total	Dly. av	Total	Dly. av.	1935	1934
Appalachian:						
Pennsylvania Grade ..	2,205	71.1	2,066	68.9	14,962	13,742
Other (inc. Kentucky).	614	19.8	556	18.5	4,050	3,599
Lima-N. E. Ind.-Mich...	1,342	43.3	1,315	43.8	8,566	6,764
Ill.-S. W. Ind.	440	14.2	422	14.1	2,886	3,195
Mid-Continent:						
N. La. and Ark.	1,682	53.2	1,621	54.1	11,322	11,999
W. Tex.-S. E. N. Mex..	6,407	206.7	6,148	205.0	43,133	37,961
East Texas	15,279	492.9	15,144	504 8	102,892	108,252
Other (Okla., Kans., N. Tex., etc.)	29,399	948.3	28,070	935.6	196,135	186,018
Gulf Coast	8,883	286.5	8,551	285.0	67,747	46,355
Rocky Mountain	1,846	59.6	1,736	57.8	11,423	9,703
California	17,418	561.9	16,709	557.0	108,544	101,824
Total	85,485	2,757.6	82,338	2,744.6	561,670	529,412

Texas Panhandle Wildcats

Week Ending September 14

Carson County

Danube Oil Co.'s No. 1 Bryan, 308 ft. from N and 409 ft. from E of N½ of NE¼ Sec. 107, Blk. 4, I.&G.N. Sur.
T.P. 3,095 ft.; T.D. 3,167 ft.; P.B. to 3,150 ft.; swabbing 20 bbls. per day while cleaning out.

Robert Watchorn's No. 1 Eller, 330 ft. from S and E lines of W½ and SE¼ of Sec. 9, Blk. 7, H.&G.N. Sur.
T.D. 3,801 ft.; P.B. to 3,050 ft.; shot with 140 qts. at 2,795-3,010 ft.; C.O.

Childress County

Alma Oil Co.'s No. 1 Lowe, 660 ft. from N and W of SW¼ Sec. 417, Blk. H, W.&N.W. Sur., 8 of Kirkland.
Drlg. 7,185 ft.

K. T. Wilson et al's No. 1 Scruggs, 1,320 ft. from S and W lines of SW¼ of Sec. 495, Blk. H, W.&N.W. Sur.
Water well drilled.

Collingsworth County

Smith Bros.' No. 1 Pierce, C NE¼ Sec. 107, Blk. 21, H.&G.N. Sur.
Drlg. 1,950 ft.

Cottle County

Texas Co.'s No. 9 Johnson, 500 ft. N and 318 ft. W of most northerly cor. of J. A. Smith Sur.
T.D. 3,620 ft.; acidized with 6,000 gals.; to test.

Gray County

Blackwell O. & G. Co. et al's No. 1 Furneaux, 330 ft. from S and E lines of SW¼ of Sec. 110, Blk. B-2, H.&G.N. Sur.
Derrick.

Clark & Smith's No. 1-B Short, 126 ft. from N and 330 ft. from E of NW 40 acres, Sec. 2, Blk. 1, H.&G.N. Sur.
Location.

Drilling Exploration Co.'s No. 1 Lapold, 330 ft. S and W, Sec. 141, Blk. 3, I.&G.N. Sur.
Material.

Tom Doswell's No. 1 Herndon, 330 ft. from S and W lines of SE¼ of SW¼ of Sec. 166, Blk. 3, I.&G.N. Sur.
S.D. 2,375 ft.

Farlias et al's No. 1 Ball, 330 ft. from S and E lines of NW¼ of Sec. 6, Blk. 3, B.B. Sur.
Drlg. 2,775 ft.

Hagy et al's No. 1 Chadwick, 320 ft. N and E, Sec. 210, Blk. B-21, H.&G.N. Sur.
T.D. 3,000 ft.; made 25 bbls. day; shut in.

Harry Foster's No. 1 Johnson, 330 ft. from N and E lines of Sec. 21, L. L. Erwin Sur.
S.D. 490 ft.

Plains Holding Co.'s No. 1 Morse-Gulf, 330 ft. S and W, Sec. 57, Blk. 25, H.&G.N. Sur.
Material.

Salisbury Oil Co.'s No. 1 Carpenter, C NE¼ Sec. 37, Blk. 25, H.&G.N. Sur.
Drlg. 1,805 ft.

Taylor Oil Co.'s No. 2 W. H. Taylor, 1,320 ft. from N and W lines of NW¼ of Sec. 75, Blk. B-2, H.&G.N. Sur.
Rig.

Hall County

Davis et al's No. 1 Knorpp, 330 ft. S and W, Sec. 7, Blk. A, A.B.&M. Sur.
Spudded and shut down.

Hartley County

O. V. Beck et al's No. 1 Matador ranch, 350 ft. from N and W of most northerly NW cor. Sec. 20, Blk. 22, Capitol Syndicate Sur.
S.D. 2,392 ft.

Hutchinson County

Phillips Pet. Co.'s No. 1 Fromma, 2,640 ft. N and 660 ft. E of W½ of E½ Sec. 2, Blk. 1, B.&B. Sur.
Derrick.

Power Pet. Co.'s No. 1 Hodges, 660 ft. S and E of most southerly 80 acres of S 160 acres of SE 200 acres, Sec. 16, Blk. M-35, T.C. Sur.
Rig.

Stinnett Oil Co.'s No. 1 Starnes, 330 ft. from N and 275 ft. from W of E½ of NW¼ Sec. 22, Blk. M-23, T.C. Ry. Sur.
S.D. 2,016 ft.

Texas Plains Oil Co.'s No. 1 State, 2,500 ft. SW of SW cor. of Sec. 15, Blk. 47, H.&T.C. Sur., and 330 ft. from N bank of Canadian River.
T.D. 2,731 ft.; 100 bbls. oil daily.

Moore County

Anderson & Kerr's No. 1 Wilbur, 660 ft. from S and E lines of NW¼ of Sec. 226, Blk. 3-J, T.&N.O. Sur.
Rigged up rotary.

Shamrock O. & G. Co.'s No. 1 Bruley & Ryan, C SW¼ of NE¼ Sec. 168, Blk. 3-T, T.&N.O. Sur.
T.D. 3,115 ft.; fishing.

Ochiltree County

James R. Macon's No. 1 W. R. Norris, 330 ft. S and 990 ft. E, Sec. 212, Blk. 43, H.&T.C. Sur.
Moving in heavy duty equipment.

Randall County

English et al's No. 1 Oxnard, 350 ft. from N and 1,320 ft. from E lines of NE¼ Sec. 85, Blk. 2, A.B.&M. Sur.
T.D. 5,700 ft.; pulling pipe to abd.

Wheeler County

Allender & Heare's No. 1 Harvey, 330 ft. from S and W lines of E½ of SW¼ of Sec. 67, Blk. 13, H.&G.N. Sur.
Machine R.U.

Dumar Oil Co.'s No. 1 Linkey, C SW¼ Sec. 106, Blk. 23, H.&G.N. Sur.
Drlg. 1,480 ft.

Northern Texas Utilities' No. 1 Calhon, 330 ft. from N and E of SE¼, Sec. 72, Blk. 13, H.&G.N. Sur.
T.D. 2,155 ft.; P.B. to 2,134 ft. and shut in for gas well.

WEST TEXAS WILDCATS

Week Ending September 14

Andrews County

Fuhrman Pet. Corp.'s No. 2 Ford, 440 ft. from S and 1,320 ft. from E, Sec. 16, Blk. A-43.
T.D. 4,481 ft.; shut in for connection.

Gulf Prod. Co.'s No. 1 Kelly, 330 ft. from S and W lines of Sec. 10, Blk. A-38, P.S.L. Sur.
Rigging up rotary.

Humble Oil & Ref. Co.'s No. 4 Means, 1,982 ft. from N and 660 ft. from E, Sec. 12, Blk. A-35.
T.D. 4,555 ft.; P.B. to 4,542 ft.; 35 bbls. fluid per hour, 30 per cent b.s.&w. Testing.

Shell Pet. Corp.'s No. 1 J. S. Means, 660 ft. from S and 1,980 ft. from E lines of Sec. 2, Blk. A-35, P.S.L. Sur.
T.D. 4,536 ft.; tested 300 bbls. in 13 hrs.; To pump.

L. G. Stogner et al's No. 1 Mrs. C. George, 660 ft. from S and E, Sec. 25, Blk. A-22, P.S.L. Sur.
Drlg. 3,207 ft.; 500,000 ft. gas at 3,070 ft.

Sun Oil Co.'s No. 1 Gowens, 660 ft. from N and E lines of Sec. 15, Blk. A-43, P.S.L. Sur.
Location.

Sun Oil Co.'s No. 1 J. S. Means, 1,980 ft. from S and 660 ft. from E lines of Sec. 8, Blk. A-35, P.S.L. Sur.
Drlg. 3,100 ft.

J. W. Tripplehorn's No. 1 Ogden, 330 ft. from S and 2,310 ft. from W lines of Sec. 6, Blk. A-46, P.S.L. Sur.
Elev. 3,211 ft.; T.D. 4,440 ft.; plugged back to 4,410 ft.; 390 bbls. in 24 hours; testing.

Wahlenmaier et al's No. 1 Cox Estate, 1,320 ft. from N and W of Sec. 8, Blk. A-33.
Standardizing at 1,849 ft.

Brewster County

F. C. Dodson's No. 1 Texas American Syndicate, 660 ft. from N and E, Sec. 66, Blk. 10, G.H.&S.A. Sur.
T.D. 1,715 ft.; fishing.

Joiner et al's No. 1 McIntyre, 353 ft. from S, 2,390 ft. from E of Sec. 21, Blk. 352, W. M. Mitchell Sur.
S.D. 2,150 ft.

King & Franklin's No. 1 Gage Est., C Sec. 138, Blk. 22, G.H.&S.A. Sur.
Elev. 4,244 ft.; S.D. 1,305 ft.

G. H. Storey's No. 1 Wilson, 1,980 ft. from N and E lines of Sec. 3, Blk. 212, T.&St.L. Sur.
Elev. 3,609 ft.; S.D. 1,875 ft.

Cochran County

Humble Oil & Ref. Co.'s No. 1 C. D Slaughter, 5,600 ft. from S and 6,000 ft from E lines of League 135, Armstrong County School Lands
T.D. 216 ft.; moving in rotary.

West Texas Dev. Co.'s No. 1 Slaughter, near C of Labour 53, League 149, Randall Co. School Lands.
S.D. 100 ft.

Coke County

Haggerty et al's No. 1 Gaston, 340 ft. from S and 654 ft. from W, Sec. 11, Jos. Young Sur.
T.D. 3,225 ft.; fishing.

Concho County

Maverick Oil Co.'s No. 1 Jim Rice, 330 ft. from S and W lines of NW¼ of Sec. 18, S.N. Ry. Sur.
Spudded and shut down.

John W. Westbrook's No. 1 Ledbetter, 1,950 ft. from N and 3,300 ft. from E lines of Sec. 2, Sur. No. 1,673.
Drlg. 380 ft.

Crane County

American Liberty Oil Co.'s No. 1 Tubbs, 796 ft. from S and 330 ft. from W, Sec. 11, Blk. B-27, P.S.L. Sur.
Elev. 2,536 ft.; T.D. 4,318 ft.; swabbed 55 bbls. oil in 24 hours.

Gulf Prod. Co.'s No. 1 M. B. McKnight, 660 ft. from S and W, Sec. 9, Blk. B-21.
Elev. 2,778 ft.; T.D. 3,713 ft.; P.B. to 3,582 ft.; pumped 57 bbls. water and no oil in 10 hrs.

Gulf Prod. Co.'s No. 1 Waddell, C NW NW Sec. 4, Blk. B-27, P.S.L. Sur.
Drlg. 5,866 ft.

H. L. Halloway's No. 1 Mayberry, 2,440 ft. from SW and SE, Sec. 17, Blk. 35, H.& T.C. Sur.
Drlg. 1,678 ft.

Crockett County

Adkins Bros.' No. 1 Shannon, 320 ft. from S and 630 ft. from W of 80 in SW¼ Sec. 27, Blk. WX, G.C.&S.F. Sur.
Machine.

Leslie-Hillier et al's No. 1 Todd, 1,200 ft. N and 330 ft. E, Sec. 36, Blk. WX, G.C.&S.F. Sur.
S.D. 821 ft.

John I. Moore's No. 1 A. C. Hoover, 330 ft. from S and E lines of Sec. 4, Blk. FF, B.&B. Sur.
Spudded and shut down.

Culberson County

Anderson-Prichard Oil Corp., Magnolia Pet. Co. et al's No. 1 Borders, 1,255 ft. N and 2,305 ft. from W, Sec. 34, Blk. 69, P.S.L. Sur.
Drlg. 1,850 ft.

Dawson County

Adams & Turner's No. 1 John Robinson, 1,320 ft. from N line, 1,320 ft. from W line of Sec. 46, Blk. M, E.L.R.R. Sur.
S.D. 4,560 ft.

Ector County

Continental Oil Co.'s No. 1 Wight, 2,200 ft. from S and W, Sec. 21, Blk. 43, Twp. 1s, T.&P. Sur.
T.D. 4,050 ft.; waiting on cable tools.

W. P. Dunning, Jr., et al's No. 1 Mrs. Clarence Scharlauer, 440 ft. from S and 2,200 ft. from W lines of Sec. 33, Blk. 44, Twp. 1n, T.&P. Sur.
Cellar and pits.

Gulf Prod. Co.'s No. 3 Goldsmith, 440 ft. from S and E, Sec. 22, Blk. 44, Twp. 1s, T.&P. Sur.
T.D. 155 ft.; rigging up rotary.

Gulf Prod. Co.'s No. 2 Goldsmith, 2,200 ft. from N and 440 ft. from E lines of Sec. 15, Blk. 44, Twp. 1s, T.&P. Sur.
T.D. 1,387 ft.; standardizing.

Empire G. & F. Co.'s No. 2 Wight, 440 ft. from N and W, Sec. 2, Blk. 43, Twp. 1s, T.&P. Sur.
Drlg. 1,220 ft.

Eppenauer Drlg. Co. et al's No. 1 Wight, 440 ft. from N and W of NE¼ Sec. 22, Blk. 43, Twp. 1s, T.&P. Sur.
Top lime 3,960 ft.; top Yates 2,935 ft.; T.D. 4,260 ft.; shot and C.O.; flowed 75 bbls. per day.

C. L. Peters' No. 1 Connell, 330 ft. from N and E lines of NW of Sec. 12, Blk. B-16, P.S.L. Sur.
T.D. 3,591 ft.; to shoot.

Sun and Atlantic's No. 1 O. B. Holt, 1,980 ft. from S and 660 ft. from W lines of Sec. 6, Blk. 43, Twp. 1n, T.&P. Sur.
Derrick.

Sun Oil Co.'s No. 1 W. P. Edwards, 466 ft. from N and E lines of Sec. 20, Blk. 43, Twp. 3s, T.&P. Sur.
Standard tools and derrick.

Sun and Atlantic O. P. Co.'s No. 1 Holt. T.D. 4,350 ft.; 32 bbls. fluid in 24 hrs.; still testing.

Sun Oil Co.'s No. 1-B Wight, 2,200 ft. from S and 440 ft. from E, Sec. 10, Blk. 43, Twp. 1s, T.&P. Sur.
Drlg. 4,100 ft.

Roy Westbrook's No. 1 Yarbrough & Allen, 440 ft. from N and W, Sec. 26, Blk. B-14, P.S.L. Sur.
Elev. 2,824 ft.; drlg. 2,343 ft.

York & Harper's No. 1 H. C. Foster, 660 ft. S and E Sec. 13-43-2s, T.&P. Sur.
Standard tools.

El Paso County

Tri-State Oil Co.'s No. 1 Kinkel, 190 ft. from N and 550 ft. from E, Sec. 237, A.T.&S.F. Sur.
T.D. 985 ft.; ran csg.

Fisher County

Tide Water's No. 2 Howard, 1,620 ft. from N and 1,550 ft. from E lines of Sec. 180, Blk. 2, H.&T.C. Sur.
Drlg. 439 ft.

Tide Water Oil Co.'s No. 1 Newman, 1,758 ft. from N and 1,054 ft. from W of NE¼ Sec. 2½, John Rodman Sur., 4 miles SE of Roby.
Drlg. 1,606 ft.

Gaines County

Wahlenmaier Pet. Co. et al's No. 1 E. H. Jones, 660 ft. S and W, Sec. 414, Blk. G, C.C.S.D.&R.G.N.G. Sur., 23 miles NW of Seminole.
Location.

Glasscock County

Moore Bros.' No. 1 Mrs. E. Miller, 660 ft. from S and E lines of Sec. 35, Blk. 34, Twp. 5s, T.&P. Sur.
T.D. 2,355 ft.; ran csg.

John I. Moore et al's No. 1 J. S. McDowell, 1,980 ft. from N line and 660 ft. from E line of Sec. 22, Blk. 34, Twp. 2s, T.&P. Sur.
Topped lime 9,471 ft.; show oil and gas 9,484-9,520 ft.; increase oil 9,594-9,600 ft. and 9,633-55 ft.; T.D. 10,115 ft.; S.D.

Howard County

John I. Moore et al's No. 1 Snyder, 330 ft. from S and W, Sec. 28, Blk. 30, Twp. 1s, T.&P. Sur.
Elev. 2,302 ft.; T.D. 3,010 ft.; bridged back to 2,850 ft.; C.O.

Jeff Davis County

C. M. Joiner's No. 1 Jones & Coffield, 770 ft. from N and 1,322 ft. from E, Sec. 8, Blk. 3, H.&T.C. Sur.
C.O. 1,610 ft.

Jones County

Anderson & Kerr's No. 1 Jennings, 330 ft. from N and W lines of SE ¼ of Sec. 1, I.&G.N. Sur.
752 ft.

Campbell et al's No. 1 Rowell, in E half of W half, Sec. 6, T.&P. Sur.
S.D. 2,150 ft.

Conway & Gholson's No. 1 Coulter, 150 ft. from S and W lines of Sec. 24, G. A. Williams Sur.
100 ft., bad hole.

D'Arman & Shelton's No. 1 J. H. Huffaker, 150 ft. from S and 2,490 ft. from E lines of Sec. 35, D.&D.A. Sur.
Drlg. 853 ft.

Farris & Fikes' No. 2 Jennings, 220 ft. from S and W of NE of SE¼ Sec. 207, B.B.B.&C. Sur.
Machine rigged up.

Farris & Fikes' No. 3 Jennings, 220 ft. from S and 660 ft. from W of NE of SE¼ Sec. 207.
T.D. 1,660 ft., underreamed csg.

Farris & Fikes' No. 1-A Jennings, 1,980 ft. from S and 150 ft. from W, Sec. 1, L.&G.N. Sur.
Machine.

N. H. Martin's No. 2 Dorsey, 200 ft. N and 700 ft. W of E½ Sub. 5, M. Bueno Sur.
Location.

Tom D. Medders et al's No. 1 J. E. Manley, 1,170 ft. from S and E lines of Sec. 35, Blk. 14, T.&P. Sur.
S.D. 230 ft.

Reliance Oil Co.'s No. 1 Crow, 660 ft. from S and 1,320 ft. from E lines of Sec. 9, D.&D.A. Sur.
Location.

Sandy Ridge Oil Co.'s No. 2 Jones, 1,520 ft. from N and 660 ft. from W, Sec. 5, Blk. 15, T.&P. Sur.
Location.

Ungren & Frazier's No. 1 Jennings, 220 ft. from S and 660 ft. from E of E½ of NE¼ Sec. 207.
Drlg. 1,586 ft.

Kimble County

Wilcox Oil & Gas Co.'s No. 1 J. Patterson, 200 ft. from N and E, Sec. 1, D.&P.R.R. Sur.
Drlg. 3,278 ft.

Loving County

D. C. Evans' No. 1 W. D. Johnson, 2,310 ft. from N and 1,650 ft. from W, Sec. 12, Blk. 57, Twp. 1, T.&P. Sur.
Drlg. 2,402 ft.

Mason Oil Co.'s No. 1 Kyle, 1,980 ft. from S and E, Sec. 22, Blk. 55, Twp. 1, T.&P. Sur.
Fishing 2,825 ft.

Lynn County

Hart Oil Co.'s No. 1-A Edwards, 425 ft. from N and 865 ft. from E line, Sec. 29, Blk. 1, L.&S.V. Sur.
Drlg. 4,875 ft.

Martin County

William Hix' No. 1 O. B. Holt, C of Labor 12, League 319, Garza County School Lands.
Spudded and shut down.

Wright & Scott's No. 1 Flannigan, 330 ft. N and E, Sec. 22, Blk. 37, Twp. 1s, T.&P. Sur.
S.D. 100 ft. for csg.

McCulloch County

Mark Hill's No. 1 Moore Bros., 934 ft. from S and 150 ft. from E lines of Sec. 2, State School Land Sur.
T.D. 690 ft.; P.B. to 685 ft.; showed est. 1,000,000 ft. gas per day 677-85 ft.

Poulter et al's No. 2 Wyres, 50 ft. from S and 160 ft. from W, P. W. Rocins Sur.
Drlg. 875 ft., show gas 656 and 775 ft.

Mitchell County

Lockhart et al's No. 1 W. C. Berry, 330 ft. from N and 2,310 ft. from E, Sec. 80, Blk. 97, H.&T.C. Sur.
Drlg. 825 ft.

Sawtell & Grueber's No. 1 Morrison.
T.D. 2,810 ft.; swabbing 100 bbls. per day.

Nolan County

Harris et al's No. 1 Georgia Institute of Technology, 330 ft. from S and 1,320 ft. from W, Sec. 89, Blk. 24, T.&P. Sur.
S.D. 200 ft.

Pecos County

Comanche P. L. Co.'s No. 1 Schreff-Blackmore, 330 ft. from SW and 1,650 ft. from SE lines of Sec. 38, Blk. 3, H.&T.C. Sur.
Drlg. 1,002 ft.

Gulf Prod. Co.'s No. 7 White & Baker, 330 ft. from N and E, Sec. 15, Blk. Z, T.C.Ry Sur.
Rigged up machine.

C. R. Richards' No. 4 Courtney, 920 ft. from N and W, Sec. 78, Blk. OW, 360 ft. S of No. 2.
Elev. 2,967 ft.; drlg. 455 ft.

Tex-Mex Pet. Co.'s No. 1 Phillips-Brandenburg, 330 ft. from S and E of N half Sec. 42, Blk. 8, H.&G.N. Sur.
Rigged up machine.

Trans-Tex. Oil Co.'s No. 1 Caldwell, 330 ft. from E line and 330 ft. from S line of Sec. 27, Blk. 40, Twp. 9, T.&P. Sur.
T.D. 3,255 ft.; running casing to shut off hole full water.

Reagan County

Dobbs Oil Co.'s No. 2 Friend, 660 ft. from W and 1,375 ft. from S, Sec. 3, Wm. Allen Sur.
Location.

Dobbs' No. 1 Friend, 2,310 ft. from S and 660 ft. from W of Blk. 3, Wm. Allen Sur., 3 or 4 miles S of Big Lake.
S.D. 2,464 ft.; P.B. to 2,440 ft.; dropped bailer and tubing in hole; fishing.

Plymouth Oil Co.'s No. 1 Belcher, 1,320 ft. from S and 466 ft. from W, Sec. 1,231, G.C.&S.F. Sur., 4 miles SE of Centralia.
T.D. 2,341 ft.; C.O.

Sun Oil Co.'s No. 1 L. W. Young, Sec. 1, G.C.&S.F. Sur., Abst. 176.
Drlg. 717 ft.

Reeves County

Dunigan's No. 1 Davis, 330 ft. from N and W, Sec. 7, Blk. 58, P.S.L. Sur.
Location.

Grisham-Hunter Corp.'s No. 1 T. P. Land Trust, 1,320 ft. from S and W lines, Sec. 27, Blk. 57, Twp. 2, T.&P. Sur.
T.D. 1,360 ft.; to deepen; elev. 3,020 ft.

Herbert Oil Co.'s No. 1 Williams & Walker, 5,280 ft. from S and 1,320 ft. from E, Sec. 17, Blk. 6, H.&G.N. Sur.

Elev. 2,636 ft.; T.D. 4,971 ft.; P.B. to 4,941 ft.; testing.

K. Slack et al's No. 1 Reeves, C NW ¼ Sec. 20, Blk. 56, P.S.L. Sur., 22 mi. N of Toyah.
T.D. 2,035 ft.; ran csg.

Washington Oil Co.'s No. 1 J. M. Radford Grocery Co., 2,640 ft. from S and 340 ft. from E, Sec. 39, Blk. 56, P.S.L. Sur.
T.D. 502 ft.

Runnels County

John Caster et al's No. 1 Giesecke, 330 ft. from N and 713 ft. from E, Sub. 3, Blk. 130, J. Hughes Sur. 227.
Rigged up.

Schleicher County

John M. Cooper et al's No. 1 Bert Page, 1,290 ft. from N line, 1,470 ft. from W line of Sec. 40, Blk. L, G.H.&S.A. Sur.
T.D. 6,257 ft.; to P.B. to 5,555 ft.; re-T.D. 6,257 ft.; P.B. to 5,555 ft.; recemented casing at 5,370 ft.; testing.

W. C. Proctor et al's No. 1 Judkins & Spencer, C SW ¼ Sec. 4, Blk. V-28.
S.D. 2,205 ft.

Scurry County

Coffield & Guthrie's No. 1 Wade, 990 ft. from N and 330 ft. from W, Sec. 115, Blk. 97, H.&T.C. Sur.
Drlg. 550 ft.

Magnolia Pet. Co.'s No. 1 W. M. Scott, 330 ft. from S and W, Sec. 136, Blk. 3, H.&G.N. Sur., 5 miles S of Snyder.
Drlg. 1,534 ft.; elev. 2,341 ft.

Sutton County

Fleetborn Oil Corp.'s No. 1 G. S. Allison, 660 ft. from S and W, Sec. 49, Blk. A, G.W.T.&P. Sur.
Rigged up rotary.

Taylor County

Anderson et al's No. 1 J. C. High, 2,310 ft. from N and 990 ft. from E, Sec. 8, L.&L. Sur.
Rigged up machine.

Hickok's No. 1 Tittle, 660 ft. from N and W, Sec. 37, Blk. 19, T.&P. Sur.
Drlg. 2,373 ft.

Skaggs & Brewer's No. 1 McClure, 330 ft. from N and E, S½ SW Sec. 3, L.A.L. Sur.
T.D. 1,920 ft.; C.O. to acidize.

Tom Green County

Twin Oil Co.'s No. 1 W. E. Green, 1,050 ft. from N and 1,400 ft. from W, L. P. Moore Sur. 169½.
S.D. 315 ft.

Upton County

Gulf Prod. Co.'s No. 103 McElroy, 1,980 ft. from S and 660 ft. from W, Sec. 197, Blk. P, C.C.S.D.&R.G.N.G. Sur.
T.D. 12,746 ft.; P.B. to 3,518 ft.; waiting on pumping unit.

Humble O. & R. Co.'s No. 1 Pollock, C of NW Sec. 4, Blk. M.
Drlg. 9,416 ft.

J. G. McKenzie's No. 1 Taylor, 1,650 ft. from S and 330 ft. from E lines of Sec. 22, Blk. B-2, G.H.&S.F. Sur.
T.D. 620 ft.

W. C. Ray's No. 1 Cordova-Union, 2,025 ft. from S and 2,895 ft. from W of NE¼ Sec. 3, A.B. Sur., 5 mi. SE of McCamey.
Drlg. 680 ft.

Ward County

Alexander's No. 1 Richter, 1,650 ft. from NW, 1,170 ft. from NE line of Sec. 27, Blk. 34, H.&T.C. Sur.
T.D. 2,455 ft.; pulling tubing.

Harry Adams Corp.'s No. 1 Gulf-Bray, 330 ft. from NE and NW, Sec. 14, Blk. 5, H.&T.C. Sur.
S.D. 2,642 ft.

California Co. et al's No. 1 McFarland, 990 ft. from NE and 330 ft. from SE Sec. 29, Blk. 34, H.&T.C. Sur.
Drlg. 2,406 ft.

California Co.'s No. 1 Walling & Costley, 2,310 ft. from SE and 330 ft. from NE lines of Sec. 18, Blk. 34, H.&T.C. Sur.
T.D. 2,537 ft.; shot and C.O.

Eastland Oil Co.'s No. 1 Johnson, 330 ft. NW and NE, Sec. 24, Blk. 34, H.&T.C. Sur.
T.D. 2,600 ft.; shot and C.O.

Empire G. & P. Co.'s No. 2 Smith, 990 ft. from N and 1,650 ft. from E, Sec. 5, Blk. F.
Drlg. 1,622 ft.

Hill et al's No. 1 Clements, 330 ft. from NW and 990 ft. from SW, Sec. 24, Blk. 5, H.&T.C. Sur.
T.D. 2,295 ft.; swabbing and C.O.

Ice & Lacey's No. 1 Baker, 1,650 ft. from NE and 330 ft. from NW, Sec. 15, Blk. 5, H.&T.C. Sur.
T.D. 2,474 ft.; testing; 1,500 ft. oil in hole in 18 hours.

Jerry Sines' No. 1 Brown, 330 ft. from NW and NE, Sec. 13, Blk. 5, H.&T.C. Sur.
T.D. 3,148 ft.; P.B. 3,075 ft.; shot and testing.

Stanolind O. & G. Co.'s No. 1 W. H. Martin, 1,650 ft. SW and 330 ft. from SE Sec. 40, Blk. 34, H.&T.C. Sur.
Location.

Tex-Mex Pet. Corp.'s No. 1 Lancaster Estate, 294 ft. N 20 degrees and 15 minutes W of NE cor. Sec. 61, Blk. 8, H.&G.N. Sur. in Pecos County, 5¼ miles down Pecos River from NW cor. of Pecos and E cor. of Reeves County.
Material.

Winkler County

Emperor Oil Co.'s No. 1 Halley, 1,650 ft. from S and 330 ft. from E, Sec. 12, Blk. B-12.
Elev. 2,764 ft.; T.D. 2,886 ft.; made 50 bbls. per day.

Gulf Prod. Co.'s No. 2 Keystone Cattle Co., NW cor. Sec. 17, Blk. B-2.
Elev. 2,951 ft.; T.D. 3,702 ft.; flowed 132 bbls. in 48 hours.

Gulf Prod. Co.'s No. 3 Keystone Cattle Co., 330 ft. from N and W of NE¼ Sec. 11, Blk. B-3.
Drlg. 3,655 ft., flowing oil and water.

Gulf Prod. Co.'s No. 4 Keystone Cattle Co., 330 ft. from N and E, Sec. 20, Blk. B-3.
T.D. 3,756 ft.; C.O.

Gulf Prod. Co.'s No. 5 Keystone Cattle Co., 330 ft. from N and W of SW¼ Sec. 6, Blk. B-2.
Elev. 2,952 ft.; Drlg. 3,740 ft.; made 433 bbls. oil and 13 bbls. water in 48 hrs.

Gulf Prod. Co.'s No. 6 Keystone Cattle Co., 330 ft. from N and W of NE¼ Sec. 16, Blk. B-2.
Elev. 2,950 ft.; T.D. 3,676 ft.; C.O. at 3,500 ft.; made 204 bbls. in 24 hrs.

Gulf Prod. Co.'s No. 7 Keystone Cattle Co., 330 ft. from N and W of SW¼ Sec. 14, Blk. B-2.
Elev. 2,954 ft.; T.D. 3,652 ft.; made 140 bbls. in 38 hrs.

Gulf Prod. Co.'s No. 8 Keystone Cattle Co., 330 ft. from S and W of Sec. 13, Blk. B-2.
Elev. 2,964 ft.; coring 4,000 ft.

Gulf Prod. Co.'s No. 9 Keystone Cattle Co., 330 ft. from S and W of Sec. 18, Blk. B-2.
Elev. 2,946 ft.; T.D. 4,126 ft.; S.D.

Humble O. & R. Co.'s No. 2-A Walton, 660 ft. from S and W, Sec. 48, Blk. 26.
T.D. 3,103 ft.; shot made 20 bbls. per hr.

K-D Oil Co.'s No. 1 P. Mitchell, 1,650 ft. from N and 2,310 ft. from E, Sec. 23, Blk. B-10, P.S.L. Sur.
Cable tools rigged up.

Mascho Oil Co.'s No. 1 Evans, 1,320 ft. from N and W, Sec. 8, Blk. A-56.
Location.

Mascho Oil Co.'s No. 1 Evans, 1,170 ft. from N and 1,320 ft. from W, Sec. 46, Blk. 73, P.S.L. Sur.
S.D. 180 ft.

Richardson's No. 1 B. F. Jenkins, 440 ft. from S and E, Sec. 13, Blk. 77, P.S.L.
T.D. 2,267 ft., straightening hole.

Richardson's No. 1 Walton, 440 ft. from S and 2,200 ft. from W, Sec. 1, Blk. B-3.
Drlg. 3,075 ft.

Showers & Moncrief & Crafton O. Co.'s No. 1 Pure-Walton, 440 ft. E and 1,320 ft. S Sec. 2, Blk. 3-B, P.S.L. Sur.
Location.

Showers & Moncrief & Crafton O. Co.'s No. 2 Pure-Walton, 2,200 ft. N and E Sec. 1, Blk. 3-B.
Location.

Skelly Oil Co.'s No. 2 Halley, 1,320 ft. from N and 2,200 ft. from E, Sec. 25, Blk. B-11, P.S.L. Sur.
S.D. 3,090 ft.

Skelly Oil Co.'s No. 3 Halley, 2,200 ft from N and 1,320 ft. from E, Sec. 25, Blk. B-11.
T.D. 3,856 ft., testing.

Sioux Oil Co.'s No. 1 Lowett, 330 ft. from N and E, Sec. 36, Blk. 26, P.S.L. Sur.
T.D. 3,130 ft., trying to kill well.

Sun Oil Co.'s No. 1 Halley, 2,200 ft. from N and 440 ft. from E, Sec. 24, Blk. B-12, P.S.L. Sur.
T.D. 3,170 ft.; P.B. 2,732 ft.; heading oil and wtr.

Weaver et al's No. 1 T. Morton, 330 ft. from S and E of N½ Sec. 11, Blk. B-12.
Elev. 2,767 ft.; T.D. 2,948 ft.; P.B. 2,927 ft.; flowing by heads 70 bbls. day.

Westbrook's No. 1 Brown & Altman, 2,310 ft. from N and E, Sec. 5, Blk. B-5.
S.D. 595 ft.

Wilgo Oil Corp.'s No. 1 Seth Campbell 18-B-3, 330 ft. from S and 1,650 ft. from W lines of Sec. 18, Blk. B-3, P.S.L. Sur.
Rotary, derrick.

Wilgo Oil Corp.'s No. 1 Campbell, 990 ft. from N and 300 ft. from E Sec. 2, Blk. 5, P.S.L. Sur., 3 miles E of Kermit.
Elev. 2,884 ft.; T.D. 4,639 ft.; P.B. to 4,630 ft.; pulling csg.

Yoakum County

C. J. Davidson et al's No. 1 Bennett, 1,320 ft. from N and E, Sec. 678, John H. Gibson Sur.
Elev. 3,557 ft.; top lime 4,655 ft.; drlg. 4,754 ft.

Richfield Sale Date

LOS ANGELES, Calif., Sept. 16.—William C. McDuffie, receiver of the Richfield Oil Co., filed a petition with U. S. District Judge James asking the court to set a date for a hearing at which time the court will fix the date of foreclosure sale of the Richfield and Pan American properties. Judge James set October 28 as the date for the hearing on the petition.

Attached to the petition was a form of the notice of sale which has been approved by counsel for the Richfield and Pan American bond trustees and counsel for the receiver.

Richard W. Millar, secretary of the reorganization committee, stated it was hoped this step would encourage prospective bidders or reorganizers to submit their offers, but that meanwhile the committee is proceeding with its own plans to conclude the receivership.

Crude Oil Stock

Stocks of domestic and foreign crude petroleum at the close of the week ending August 31 totaled 309,976,000 bbls., according to data compiled by the Bureau of Mines. Compared with the previous week, this total represents a decline of 346,000 bbls., comprising decreases of 181,000 and 165,000 bbls. in stocks of domestic and foreign crude, respectively.

Daily average imports of crude oil increased from 53,000 bbls. for the week ending August 24 to 63,000 bbls.

STOCKS OF CRUDE PETROLEUM

	Barrels	
Grade of crude oil:	Aug. 24	Aug. 31
Pennsylvania Grade	4,861,000	4,881,000
Other Appalachian	893,000	899,000
Lima-NE Ind.-Mich.	1,449,000	1,419,000
Ill.-SW Ind.	11,422,000	11,430,000
N. La. and Ark.	11,000,000	10,856,000
W. Tex. and SE N. Mexico	30,378,000	30,516,000
East Texas	26,158,000	25,801,000
Other Mid-Cont.	139,139,000	139,031,000
Gulf Coast	24,424,000	24,226,000
Rocky Mountain	*27,283,000	27,254,000
California	*29,562,000	30,075,000
Domestic crude	*306,569,000	306,388,000
Foreign crude	3,753,000	3,588,000
Total crude†	*310,322,000	309,976,000

*Revised. †Represents approximately 93 per cent of total stocks in the United States, exclusive of lease (producers') stocks.

Specimens Available

Collections of rocks, minerals and fossils of Oklahoma are again available to schools of the State for use in instruction in natural sciences, according to Robert H. Dott, director of the Oklahoma Geological Survey at Norman, Okla. Since reorganization of the survey July 1 several requests have been received for the mineral sets and arrangements have been worked out for resuming this form of co-operation with the schools of the State.

New Mexico Allowable

The New Mexico Oil Conservation Commission set the allowable outlet for the state for the first half of September at 60,000 bbls. daily, an increase of 100 bbls. Allocations outside of Lea County are as follows:

	Bbls.
Artesia	2,000
Hogback	190
Rattlesnake	750
Table Mesa	85
Aztec-Bloomfield	10
Total	3,035

Allocation to Lea County marginal units are as follows:

	Units	Allocation
Cooper	7	248
Eunice	6	488
Hobbs	1	7
Jal	19	1,272
Lea	3	185
North Lea	1	19
Total	37	2,219

Top allowance per well per day for nonmarginal units is 135 bbls.

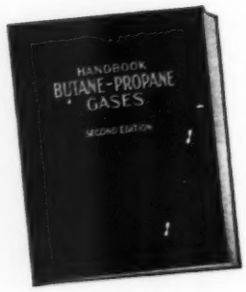
Allocation for Lea County, with number of nonmarginal units and including marginal wells, is as follows:

	Units	Allocation
Cooper	68	9,428
Eunice	74	10,478
Jal	26	4,782
Lea	8	1,265
Lea Ext.	0	19
Hobbs	222	29,997
Monument	7	945
Total	405	56,894

Pipe line runs, Lea County pools in August were as follows:

	Bbls.
Hobbs	927,001
Cooper-Lynn	271,472
Jal	117,233
Eunice	311,473
Lea	38,327
North Lea	994

THE ONLY HANDBOOK OF BUTANE—PROPANE GASES



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Summary of Operations in All Fields for July

SUMMARY OF ALL FIELDS

	Comp.	Prod.	Dry	Gas
Eastern	247	691	21	39
Central Ohio	11	134	1	6
Lima	11	38	2	5
Indiana	22	55	10	6
Michigan	77	19,235	25	9
Kentucky	31	447	4	1
Illinois	1	0	1	0
Kansas	132	73,266	23	2
Oklahoma	204	126,688	51	11
North Central Texas	249	13,089	20	2
East Central Texas	27	909	14	1
East Texas	325	15,432	25	0
East Texas gas area	1	0	1	0
West Texas	97	44,105	18	1
Panhandle Texas	86	58,336	4	7
Gulf Coast Texas	90	23,762	23	6
Gulf Coast Louisiana	34	15,477	8	1
Southwest Texas	154	25,491	60	6
North Louisiana	30	6,868	15	8
Arkansas	7	845	5	0
Mississippi	2	0	2	0
Montana	32	2,178	6	4
Wyoming	13	4,513	3	0
Colorado	1	175	0	0
Alabama	1	0	1	0
New Mexico	40	47,420	11	1
Utah	1	0	0	1
Total August	1,921	479,154	454	117
Total July	1,773	307,488	391	112
Difference	148	171,666	63	5

Rigs and Wells Drilling

	Rigs	Dlg.	Ttl.
Eastern	70	249	319
Central Ohio	18	61	79
Lima	2	37	39
Indiana	2	30	32
Michigan	131	256	387
Kentucky	9	10	19
Illinois	0	8	8
Kansas	31	208	239
Oklahoma	53	507	560
North Central Texas	50	212	262
East Central Texas	18	32	50
East Texas	87	139	226
East Texas gas field	13	12	25
West Texas	66	227	293
Panhandle Texas	34	149	183
Gulf Coast Texas	24	135	159
Gulf Coast La.	11	57	68
Southwest Texas	26	160	186
North Louisiana	26	85	111
Arkansas	8	29	37
Mississippi	2	12	14
Alabama	0	4	4
Montana	14	56	70
Wyoming	12	71	83
Colorado	3	30	33
New Mexico	12	105	117
Utah	2	8	10
Total August	724	2,889	3,613
Total July	755	2,901	3,656
Difference	31	12	43

OKLAHOMA

Summary of Wells Completed

County—	Comp.	Prod.	Dry	Gas
Atoka	1	0	1	0
Beckham	1	0	1	0
Cotton	2	10	0	0
Creek	19	576	3	0
Carter	7	432	1	0
Coal	2	0	2	0
Comanche	1	8	0	0
Choctaw	1	0	1	0
Garvin	1	0	1	0
Greer	1	0	1	0
Hughes	2	567	0	0
Jackson	7	343	2	0
Jefferson	1	20	0	0
Lincoln	2	112	1	0
Marshall	7	15	3	1
Major	1	0	1	0
Muskogee	1	20	0	0
Noble	7	4,160	3	0
Oklahoma	15	63,338	0	3
Osage	29	13,632	4	0
Okmulgee	11	191	3	1
Okfuskee	4	0	1	3
Payne	1	587	0	0
Pontotoc	30	27,035	5	0
Pottawatomie	7	500	3	0
Seminole	21	14,977	1	2
Stephens	10	70	5	0
Texas	1	0	0	1
Tillman	1	0	1	0
Tulsa	4	30	3	0
Wagoner	4	65	2	0
Washita	2	0	2	0
Total Aug.	204	126,688	51	11
Total July	184	82,589	60	14
Difference	20	44,099	9	3

The production of 23 completions in the Fitts Pool in Pontotoc County, 26,950 bbls., represents an average of 5.62 hours' flow on their completion test, through casing and through tubing and casing.

Rigs and Wells Drilling

County—	Rigs	Dlg.	Ttl.
Alfalfa	0	1	1
Atoka	1	12	13
Beckham	0	4	4
Blaine	0	1	1
Bryan	1	2	3
Caddo	0	7	7
Cleveland	0	3	3
Cotton	0	1	1
Creek	4	47	51
Carter	1	12	13
Coal	0	2	2
Comanche	1	5	6
Choctaw	1	1	2
Ellis	0	1	1
Grant	1	3	4
Garfield	0	2	2
Garvin	0	3	3
Grady	0	4	4
Greer	0	3	3
Harmon	2	0	2
Hughes	2	14	16
Jackson	0	15	15
Jefferson	0	4	4
Johnston	0	1	1
Kay	0	4	4
Kiowa	0	3	3
LeFlore	0	1	1
Love	0	1	1
Logan	0	21	21
Lincoln	0	8	8
Marshall	0	11	11
Murray	0	2	2
McClain	0	1	1
Muskogee	0	6	6
Noble	0	17	17
Oklahoma	8	55	63
Osage	11	49	60
Okmulgee	1	21	22
Okfuskee	2	10	12
Pawnee	0	3	3
Payne	0	2	2
Pontotoc	3	63	66
Pittsburg	0	1	1
Pttawatomie	4	13	17
Pushmataha	0	1	1
Seminole	7	42	49
Stephens	1	9	10
Tillman	0	2	2
Tulsa	0	6	6
Wagoner	1	7	8
Washita	1	0	1
Total Aug.	53	507	560
Total July	78	510	588
Difference	25	3	28

KANSAS

Summary of Wells Completed

County—	Comp.	Prod.	Dry	Gas
Barber	1	0	0	1
Barton	3	4,074	0	0
Butler	7	261	2	0
Clay	1	0	1	0
Cowley	3	616	1	0
Elk	1	25	0	0
Ellsworth	11	16,987	0	0
Ellis	3	499	2	0
Greenwood	6	170	2	0
Harvey	4	1,820	1	0
Kingman	1	0	1	0
McPherson	13	3,031	1	1
Pratt	1	339	0	0
Reno	7	1,597	1	0
Rice	21	13,939	4	0
Rush	2	0	2	0
Russell	22	9,068	3	0
Sedgwick	4	580	1	0
Sumner	8	19,527	0	0
Stafford	2	185	1	0
Woodson	1	548	0	0
Total Aug.	122	73,266	23	2
Total July	91	31,726	26	4
Difference	31	41,540	3	2

Rigs and Wells Drilling

County—	Rigs	Dlg.	Ttl.
Barber	0	4	4
Barton	1	10	11
Butler	0	14	14
Clark	0	1	1
Clay	0	1	1
Cowley	1	6	7
Dickinson	0	1	1
Elk	0	1	1
Ellis	2	3	5
Ellsworth	5	13	18
Graham	2	1	3
Greenwood	0	3	3
Harper	0	1	1
Harvey	2	7	9
Kingman	0	2	2
McPherson	1	17	18
Osage	0	1	1
Pratt	0	2	2
Reno	1	13	14
Rice	8	40	48
Rooks	0	6	6
Rush	0	6	6
Russell	5	28	33
Scott	0	1	1
Sedgwick	0	6	6
Sumner	3	13	16
Stafford	0	2	2
Trego	0	4	4
Woodson	0	1	1
Total Aug.	31	208	239
Total July	35	222	257
Difference	4	14	18

EAST TEXAS

Summary of Wells Completed

County—	Comp.	Prod.	Abd.	Gas
Anderson	13	898	2	1
Angelina	3	11	2	0
Cherokee	2	0	2	0
Freestone	1	0	1	0
Gregg	98	6,144	7	0
Henderson	3	125	2	0
Hunt	1	0	1	0
Limestone	2	0	2	0
Nacogdoches	1	0	1	0
Navarro	1	0	1	0
Red River	1	0	1	0
Rusk	138	5,889	7	0
Smith	36	1,764	1	0
Upshur	51	1,510	8	0
Wood	1	0	1	0
Total August	352	16,341	39	1
Total July	420	20,815	26	5
Difference	68	4,474	13	4

Rigs and Wells Drilling

County—	Rigs	S.D.	Drlg.	Ttl.
Anderson	1	1	4	6
Angelina	0	2	1	3
Bowie	0	2	0	2
Cherokee	0	1	0	1
Falls	0	1	0	1
Fannin	0	1	1	2
Freestone	0	1	1	2
Gregg	42	4	38	84
Henderson	2	0	1	3
Hopkins	0	1	0	1
Hunt	0	0	1	1
Kaufman	0	2	0	2
Lamar	1	0	1	2
Leon	1	0	0	1
Limestone	0	1	1	2
McLennan	1	0	1	2
Nacogdoches	0	0	1	1
Navarro	0	1	1	2
Rains	3	0	0	3
Red River	3	0	0	3
Rusk	16	7	58	81
Smith	18	0	18	36
Titus	1	0	0	1
Upshur	11	1	12	24
Van Zandt	4	0	5	9
Wood	1	0	0	1
Total August	105	26	145	276
Total July	123	31	218	372
Difference	18	5	73	96

WEST CENTRAL AND NORTH TEXAS

Summary of Field Operations

County—	Comp.	Prod.	Abd.	Gas
Archer	71	1,230	39	0
Baylor	13	7,074	1	0
Brown	8	42	5	1
Callahan	8	2	7	0
Coleman	2	0	2	0
Cooke	20	1,292	7	0
Eastland	5	98	1	0
Jack	5	0	4	1
Montague	4	270	1	0
Shackelford	31	556	13	0
Throckmorton	3	0	3	0
Wichita	24	681	9	0
Wilbarger	10	465	4	0
Wise	1	0	1	0
Young	44	1,379	23	0
Total August	249	13,089	120	2
Total July	241	9,307	105	3
Difference	8	3,782	15	1

Rigs and Wells Drilling

County—	Rigs	S.D.	Drlg.	Ttl.
Archer	10	1	26	37
Baylor	1	1	11	13
Brown	1	2	5	8
Callahan	3	2	7	12
Coleman	1	4	6	11
Collin	0	1	0	1
Comanche	1	3	1	5
Cooke	3	4	11	18
Denton	0	1	3	4
Eastland	4	2	3	9
Erath	0	2	0	2
Foard	0	0	1	1
Hamilton	0	0	1	1
Haskell	1	0	2	3
Jack	1	3	5	9
Mills	0	1	0	1
Montague	3	2	6	11
Palo Pinto	0	1	1	2
Parker	0	3	0	3
Shackelford	8	2	14	24
Stephens	0	1	1	2
Tarrant	0	0	1	1
Throckmorton	0	0	2	2
Wichita	1	5	19	25
Wilbarger	0	3	4	7
Wise	0	0	1	1
Young	12	5	32	49
Total August	50	49	163	262
Total July	52	50	164	266
Difference	2	1	1	4

TEXAS PANHANDLE

Summary of Field Operations

County—	Comp.	Prod.	Abd.	Gas
Carson	6	2,466	0	0
Dallam	1	0	1	0
Gray	33	11,258	2	0
Hutchinson	18	7,108	1	0
Moore	2	0	0	2
Wheeler	26	37,504	0	5
Total August	86	58,336	4	7
Total July	52	22,963	5	4
Difference	33	35,373	1	3

Rigs and Wells Drilling

County—	Rigs	S.D.	Drlg.	Ttl.
Carson	1	1	7	9
Childress	1	1	1	3
Collingsworth	0	0	1	1
Gray	11	6	55	72
Hall	0	1	0	1
Hartley	0	0	1	1
Hutchinson	12	6	38	56
Moore	2	1	6	9
Ochiltree	1	0	0	1
Randall	0	0	1	1
Roberts	0	0	2	2
Wheeler	6	2	19	27
Total August	34	18	131	183
Total July	30	36	137	203
Difference	4	18	6	20

WEST TEXAS

Summary of Field Operations

County—	Comp.	Prod.	Abd.	Gas
Andrews	5	350	2	1
Brewster	1	0	1	0
Crane	3	1,898	0	0
Crockett	2	557	0	0
Dawson	1	0	1	0
Ector	7	1,865	1	0
Fisher	4	869	1	0
Glasscock	3	531	1	0
Howard	11	3,839	2	0
Jones	6	1,360	2	0
Mitchell	1	0	1	0
Pecos	9	13,735	3	0
Reeves	1	0	1	0
Runnels	1	0	1	0
Scurry	1	12	0	0
Upton	16	6,592	1	0
Ward	11	6,092	0	0
Winkler	14	6,405	0	0
Total August	97	44,105	18	1
Total July	56	22,365	11	0
Difference	41	21,740	7	1

Rigs and Wells Drilling

County—	Rigs	S.D.	Drlg.	Ttl.
Andrews	1	2	6	9
Brewster	0	4	0	4
Cochran	1	1	0	2
Coke	0	0	1	1
Concho	2	0	0	2
Crane	1	1	8	10
Crockett	1	1	0	2
Culberson	0	1	1	2
Dawson	0	2	0	2
Ector	7	2	15	24
El Paso	0	2	1	3
Fisher	2	1	7	10
Garza	0	0	1	1
Glasscock	0	3	0	3
Howard	2	1	25	28
Jeff Davis	0	0	1	1
Jones	5	2	7	14
Kimble	0	0	1	1
Loving	0	3	0	3
Lynn	0	0	1	1
Mitchell	0	1	1	2
McCulloch	0	0	2	2
Nolan	0	0	1	1
Pecos	6	2	11	19
Presidio	0	1	5	1
Reagan	2	0	3	5
Reeves	0	4	0	4
Runnels	0	3	2	5
Schleicher	0	1	1	2
Scurry	0	1	2	3
Sutton	1	0	0	1
Taylor	1	1	2	4
Tom Green	0	1	0	1
Upton	3	1	15	19
Ward	16	7	30	53
Winkler	15	2	30	47
Yoakum	0	0	1	1
Total August	66	51	176	293
Total July	59	31	184	274
Difference	7	20	12	19

SOUTHWEST TEXAS

Summary of Field Operations

Field—	Comp.	Prod.	Abd.	Gas	Rgs.	Dlg.	Ttl.
Barbacoas	0	0	0	0	0	1	1
Bateman	0	0	0	0	0	1	1
Blas Uribe	1	0	1	0	0	0	0
Branyon	1	0	1	0	0	0	0
Bruni-Cole	10	3,975	2	0	2	11	13
Burnell	1	0	1	0	0	0	0
Caesar	6	1,140	1	0	0	2	2
Carolina-Texas	1	50	0	0	0	0	0
Carroll	2	0	2	0	0	0	0
Charco Redondo	1	0	1	0	0	0	0
Dale	1	15	0	0	0	0	0
Darst Creek	1	20	0	0	0	0	0
Dinero	1	250	0	0	0	2	2
Dirks	14	4,830	0	0	2	4	6
Dobrowolski	0	0	0	0	0	1	1
Driscoll	1	0	1	0	0	0	0
Dunlap	1	0	1	0	1	5	6
Escobas	2	15	1	0	0	1	1
Govt. Wells	11	3,520	2	0	3	5	8
Hoffman	0	0	0	0	0	1	1
Hondo	0	0	0	0	0	1	1
Jacob	2	50	1	0	0	0	0
Kingsville	0	0	0	0	1	2	3
Loma Alto	0	0	0	0	0	1	1
Loma Novia	19	4,600	0	1	3	11	14
Lopez	2	960	1	0	0	0	0
Lopino	1	0	1	0	0	1	1
Lucas	1	0	0	1	0	0	0
Mercedes	0	0	0	0	0	3	3
Mirando City	1	96	0	0	0	0	0
Mirando Valley	1	0	0	1	0	0	0
Noack	1	0	1	0	0	0	0
N. Pettus	2	360	0	0	0	3	3
Palo Blanco	0	0	0	0	0	1	1
Pearsall	1	0	1	0	0	0	0

Pettus	1	0	1	0	0	0	0
Plymouth	5	1,640	1	1	2	9	11
Ray	4	1,420	0	0	1	4	5
Rio Grande City	3	50	2	0	1	3	4
Samfordyce	7	470	0	0	2	7	9
Sandia	1	0	1	0	0	0	0
Saxet	4	1,090	0	0	3	10	13
Seelligson	1	0	1	0	0	0	0
Seven Sisters	2	0	0	2	0	0	0
Sinton	1	150	0	0	0	0	0
Tuleta	1	200	0	0	0	0	0
Von Ormy	3	10	2	0	0	3	3
W. Tuleta	1	240	0	0	1	0	1
Worth	1	50	0	0	0	1	1
Misc.	38	290	32	0	4	66	70
Total Aug.	159	26,491	60	6	26	160	186
Total July	155	21,695	63	9	16	155	171
Difference	4	3,886	3	3	10	5	15

GULF COAST

Texas

Summary of Field Operations

Field—	Comp.	Prod.	Dry	Gas	Rgs.	Dig.	Ttl.
Anahuac	1	743	0	0	3	5	8
Arriola	1	119	0	0	0	2	2
Barbers Hill	2	745	0	0	0	2	2
Batson	1	432	0	0	1	3	4
Big Hill	0	0	0	0	1	1	2
Big Creek	0	0	0	0	0	1	1
Blue Ridge	2	225	0	0	0	0	0
Boling	1	0	1	0	0	3	3
Clay Creek	1	600	0	0	1	1	2
Cleveland	1	0	1	0	1	1	2
Conroe	5	1,522	0	1	1	3	4
Danbury	0	0	0	0	0	1	1
Dickinson	3	283	0	0	1	6	7
Esperson	1	0	1	0	0	2	2
Fannett	1	498	0	0	0	1	1
Greta	1	408	0	0	0	0	0
Hankamer	1	172	0	0	3	3	6
Hastings	5	2,144	0	0	1	12	13
High Island	4	1,207	0	0	1	5	6
Hull	2	18	1	0	0	0	0
Humble	3	459	0	0	0	2	2
Kittrell	1	276	0	0	0	0	0
Livingston	5	3,733	0	0	1	4	5
Louise	1	325	0	0	1	3	4
McFaddin	0	0	0	1	0	0	0
Manvel	8	1,043	2	0	1	6	7
Markham	1	0	1	0	0	0	0
Midfield	1	633	0	0	0	0	0
Mykawa	3	729	0	0	1	4	5
Orchard	0	0	0	0	0	2	2
Pickett Rdg.	0	0	0	0	0	1	1
Pierce Jct.	3	906	1	0	0	5	5
Placedo	3	240	1	1	0	5	5
Port Neches	0	0	0	0	0	2	2
Port Lavaca	2	689	0	0	2	1	3
Rac'n Bend	2	864	0	1	0	2	2
Refugio	1	600	0	0	0	0	0
S. Houston	0	0	0	0	0	6	6
Splendora	1	0	1	0	0	0	0
Thompson	3	2,184	0	0	0	2	2
Tomball	7	1,944	0	2	0	5	5
Vanderbilt	0	0	0	0	0	1	1
Van Vleck	0	0	0	0	0	2	2
Misc.	12	0	12	0	4	30	34
Total Aug.	90	23,762	23	6	24	135	159
Total July	92	23,541	21	5	21	137	158
Difference	2	221	2	1	3	2	1

Louisiana

Summary of Field Operations

Field—	Comp.	Prod.	Dry	Gas	Rgs.	Dig.	Ttl.
Bay St. Elaine	0	0	0	0	0	1	1
Bayou St. Dennis	0	0	0	0	0	2	2
Black Bayou	2	1,615	0	0	0	3	3
Bosco	7	1,992	1	0	0	0	0
Caillou Isl.	1	1,883	0	0	0	1	1
Cameron Meadows	4	2,682	0	0	1	0	1
Choctaw	1	1,272	0	0	0	0	0
Darrow	0	0	0	0	1	1	2
Edgerly	0	0	0	0	0	1	1
Garden Isl.	0	0	0	0	0	1	1
Gillis	5	1,156	1	1	2	4	6
Gueydan	0	0	0	0	0	1	1
Hackberry	1	922	0	0	1	7	8
Iberville	1	0	1	0	0	0	0
Iowa	1	720	0	0	0	1	1
Jennings	0	0	0	0	0	2	2
Lake Barre	0	0	0	0	0	1	1
Lake Hermitage	0	0	0	0	0	1	1
Leesville	3	2,645	1	0	1	2	3
New Iberia	1	0	1	0	2	3	5
Roanoke	2	0	2	0	0	4	4
Sulphur	3	1,390	0	0	0	1	1
Tepetate	1	465	0	0	2	0	2
White Castle	0	0	0	0	0	2	2
Misc.	1	0	1	0	1	17	18
Total Aug.	34	15,477	8	1	11	57	68
Total July	25	10,921	8	0	15	75	90
Difference	9	4,556	0	1	4	18	22

LOUISIANA-ARKANSAS

North Louisiana

Summary of Field Operations

	Comp.	Prod.	Dry	Gas*	Rgs.	Dig.	Ttl.
Avoyelles	1	0	1	0	1	0	1
Bienville	0	0	0	0	0	1	1
Bossier	5	18	3	0	0	0	0
Caddo	12	6,820	4	4	11	28	39
Caldwell	1	0	1	0	0	2	2
Catahoula	0	0	0	0	1	1	2
Claiborne	0	0	0	0	0	1	1
DeSoto	0	0	0	0	1	7	8
E. Carroll	1	0	1	0	0	0	0
Grant	0	0	0	0	0	1	1
Jackson	1	0	1	0	0	0	0
LaSalle	0	0	0	0	0	2	2
Lincoln	0	0	0	0	0	1	1
Madison	0	0	0	0	0	1	1
Morehouse	0	0	0	0	0	3	3
Natchitoches	1	0	1	0	1	2	3
Ouachita	2	0	0	2	4	7	11
Rapides	0	0	0	0	0	1	1
Red River	0	0	0	0	1	1	2
Sabine	4	30	3	0	6	12	18
Union	2	0	0	2	0	3	3
Webster	0	0	0	0	0	1	1
Winn	0	0	0	0	0	1	1
Ttl. Aug.	30	6,868	15	8	26	85	111
Ttl. July	30	265	10	11	54	75	129
Difference	0	6,603	5	3	28	10	18

*Gas production: Caddo, 130,500,000 feet; Ouachita, 1,800,000 feet; Union, 8,400,000 feet; total, 140,700,000 feet.

Alabama

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rgs.	Dig.	Ttl.
Baldwin	1	0	1	0	0	0	0
Covington	0	0	0	0	0	1	1
Houston	0	0	0	0	0	1	1
Lamar	0	0	0	0	0	1	1
Mobile	0	0	0	0	0	1	1
Ttl. Aug.	1	0	1	0	0	4	4
Ttl. July	0	0	0	0	0	3	3
Difference	1	0	1	0	0	1	1

Arkansas

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rgs.	Dig.	Ttl.
Arkansas	0	0	0	0	0	1	1
Ashley	0	0	0	0	1	2	3
Calhoun	0	0	0	0	0	1	1
Columbia	0	0	0	0	0	2	2
Dallas	0	0	0	0	0	1	1
Hempstead	0	0	0	0	1	1	2
Lafayette	0	0	0	0	3	3	6
Miller	4	330	3	0	1	5	6
Nevada	0	0	0	0	0	1	1
Ouachita	1	0	1	0	0	2	2
Poinsett	0	0	0	0	0	1	1
St. Francis	0	0	0	0	0	1	1
Sevier	0	0	0	0	1	0	1
Union	2	515	1	0	1	8	9
Ttl. Aug.	7	845	5	0	8	29	37
Ttl. July	5	20	4	0	10	29	39
Difference	2	825	1	0	2	0	2

East Texas (Border Counties)

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rgs.	Dig.	Ttl.
Cass	0	0	0	0	5	0	5
Harrison	0	0	0	0	3	3	6
Marion	0	0	0	0	2	2	4
Panola	1	0	1	0	2	5	7
Shelby	0	0	0	0	1	2	3
Ttl. Aug.	1	0	1	0	13	12	25
Ttl. July	0	0	0	0	11	13	24
Difference	1	0	1	0	2	1	1

Mississippi

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rgs.	Dig.	Ttl.
Amite	0	0	0	0	0	1	1
Bolliver	0	0	0	0	0	1	1
Clarke	0	0	0	0	1	1	2
Grenada	0	0	0	0	0	1	1
Harrison	0	0	0	0	0	1	1
Hinds	1	0	1	0	0	0	0
Lauderdale	0	0	0	0	0	1	1
Monroe	0	0	0	0	0	2	2
Rankin	1	0	1	0	0	0	0
Simpson	0	0	0	0	1	1	2
Warren	0	0	0	0	0	1	1
Washington	0	0	0	0	0	1	1
Winston	0	0	0	0	0	1	1
Ttl. Aug.	2	0	2	0	2	12	14
Ttl. July	0	0	0	0	2	12	14
Difference	2	0	2	0	0	0	0

ROCKY MOUNTAIN AREA

New Mexico

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rgs.	Dig.	Ttl.
Lea	29	47,317	3	0	7	61	68
Eddy	6	106	5	0	1	10	11
Chaves	0	0	0	0	0	4	4
Quay	0	0	0	0	0	2	2
Roosevelt	1	0	1	0	0	1	1
Curry	0	0	0	0	0	1	1
Union	0	0	0	0	0	1	1
San Juan	3	3	1	1	2	10	12
San Miguel	0	0	0	0	0	3	3
Bernalillo	0	0	0	0	0	2	2
McKinley	1	0	1	0	0	3	3
Rio Arriba	0	0	0	0	1	0	1
Sandoval	0	0	0	0	0	1	1
Torrance	0	0	0	0	0	2	2
Valencia	0	0	0	0	1	4	5
Ttl. Aug.	40	47,429	11	1	12	105	117
Ttl. July	21	42,949	6	0	25	96	121
Difference	29	2,471	5	1	13	9	4

Wyoming

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rgs.	Dig.	Ttl.
Albany	1	0	1	0	0	2	2
Big Horn	1	350	0	0	4	10	14
Carbon	0	0	0	0	1	7	8
Converse	0	0	0	0	0	7	7
Fremont	0	0	0	0	0	4	4
Hot Springs	1	199	0	0	1	3	4
Lincoln	0	0	0	0	0	3	3
Niobrara	3	3,251	0	0	3	9	12
Park	2	574	1	0	1	3	4
Sublet	1	50	0	0	0	4	4
Uinta	0	0	0	0	0	6	6
Washakie	1	160	0	0	0	3	3
Weston	3	28	1	0	1	7	8
Misc.	0	0	0	0	1	3	4
Total Aug.	13	4,513	3	0	12	71	83
Total July	6	86	3	0	11	71	82
Difference	7	4,427	0	0	1	0	1

Montana

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rgs.	Dig.	Ttl.
Big Horn	0	0	0	0	0	2	2
Carbon	1	0	0	1	0	3	3
Cascade	0	0	0	0	1	1	2
Fergus	0	0	0	0	0	4	4
Glacier	19	1,595	3	2	7	20	27
Pondera	0	0	0	0	0	3	3
Stillwater	1	0	1	0	0	0	0
Toole	11	583	2	1	4	14	18
Misc.	0	0	0	0	2	9	11
Total Aug.	32	2,178	6	4	14	56	70
Total July	19	797	2	1	11	61	72
Difference	13	1,381	4	3	3	5	2

Utah

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rgs.	Dig.	Ttl.
Daggett	1	0	0	1	0	0	0
Grand	0	0	0	0	2	1	3
Misc.	0	0	0	0	0	7	7
Total Aug.	1	0	0	1	2	8	10
Total July	0	0	0	0	0	10	10
Difference	1	0	0	1	2	2	0

Colorado

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rgs.	Dig.	Ttl.
Adams	0	0	0	0	1	1	2
Archuleta	0	0	0	0	0	3	3
Grand	0	0	0	0	0	2	2
Huerfano	0	0	0	0	0	3	3
Jackson	0	0	0	0	0	2	2
Larimer	0	0	0	0	0	2	2
Moffat	1	175	0	0	1	2	3
Misc.	0	0	0	0	1	15	16
Total Aug.	1	175	0	0	3	30	33
Total July	0	0	0	0	4	24	28
Difference	1	175	0	0	1	6	5

EASTERN FIELDS

Summary of Completed Work

Field—	Comp.	Prod.	Dry	Gas
Bradford	109	178	0	0
Allegany	2	2	0	0
Venango-Clarion	34	37	2	0
Butler-Armstrong	4	7	0	0
Southwest Pennsylvania	11	8	4	5
Southeast Ohio	42	374	6	10
West Virginia	44	84	9	24
Total Aug.	247	691	21	39
Total July	285	972	21	25
Difference	38	281	0	14

Summary of Work Under Way

Field—	Rigs	Dig.	Ttl.
Bradford	12	76	88
Allegany	0	3	3
Venango-Clarion	4	13	17
Butler-Armstrong	5	4	9
Southwest Pennsylvania	7	21	28
Southeast Ohio	19	38	57
West Virginia	23	94	117
Total August	70	249	319
Total July	80	235	315
Difference	10	14	4

MICHIGAN

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rgs.	Dig.	Ttl.
Midland	8	750	0	0	16	51	67
Isabella	9	260	5	2	17	31	48
Ogemaw	10	1,120	1	0	16	15	31
Gladwin	3	80	2	0	0	3	3
Oceana	1	0	1	0	0	0	0
Eaton	0	0	0	0	1	0	1
Hillsdale	0	0	0	0	2	0	2
Lenawee	0	0	0	0	0	1	1
LaPeer	0	0	0	0	3	2	5
Bay	0	0	0	0	0	1	1
Roscommon	0	0	0	0	1	0	1
Mason	0	0	0	0	0	1	1
Clare	0	0	0	0	0	3	3
Chippewa	0	0	0	0	1	0	1
Clinton	1	0	1	0	1	0	1
Mecosta	3	0	1	2	5	14	19
Deerfield	0	0	0	0	1	0	1
Montcalm	35	15,980	11	4	64	122	186
Wexford	1	1,000	0	0	0	0	0
Saginaw	2	45	0	0	0	0	0
Gratiot	2	0	1	1	0	12	12
Newaygo	0	0	0	0	3	0	3
Osceola	2	0	2	0	0	0	0
Total Aug.	77	19,235	25	9	131	256	387
Total July	38	14,583	7	13	100	160	260
Difference	39	4,652	18	4	31	96	127

INDIANA

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rgs.	Dig.	Ttl.
Gibson	5	10	0	3	1	7	8
Pike	3	0	1	2	0	1	1
Knox	0	0	0	0	0	2	2
Decatur	1	0	0	1	0	3	3
Lawrence	0	0	0	0	0	2	2
Daviess	1	0	1	0	0	2	2
Cass	0	0	0	0	0	1	1
DeKalb	0	0	0	0	0	1	1
Jay	0	0	0	0	0	2	2
Martin	3	0	3	0	0	1	1
Perry	1	0	1	0	0	3	3
Knox	0	0	0	0	0	2	2
Lawrence	0	0	0	0	1	1	2
Spencer	6	45	2	0	0	1	1
Marion	2	0	2	0	0	1	1
Total Aug.	22	55	10	6	2	30	32
Total July	17	105	7	5	0	42	42
Difference	5	50	3	1	2	12	10

ILLINOIS

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rgs.	Dig.	Ttl.
Clark	1	0	1	0	0	3	3
Crawford	0	0	0	0	0	4	4
Jasper	0	0	0	0	0	1	1
Total Aug.	1	0	1	0	0	8	8
Total July	0	0	0	0	0	10	10
Difference	1	0	1	0	0	2	2

KENTUCKY

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rgs.	Dig.	Ttl.
Ohio	27	341	3	1	6	7	13
Hancock	3	100	1	0	3	2	5
McLean	1	6	0	0	0	1	1
Total Aug.	31	447	4	1	9	10	19
Total July	17	620	3	1	4	17	21
Difference	14	173	1	0	5	7	2

LIMA

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rgs.	Dig.	Ttl.
Wood	0	0	0	0	0	3	3
Henry	0	0	0	0	0	2	2
Lucas	0	0	0	0	0	1	1
Allen	2	27	0	0	0	7	7
Auglaize	0	0	0	0	0	3	3
Ottawa	0	0	0	0	0	1	1
Hardin	2	0	0	2	1	0	1
Darke	0	0	0	0	0	3	3
Van Wert	1	10	0	0	0	5	5
Hancock	0	0	0	0	0	1	1
Sandusky	1	1	0	0	0	4	4
Seneca	4	0	1	3	0	4	4
Wyandot	1	0	1	0	1	3	4
Total Aug.	11	38	2	5	2	37	39
Total July	9	234	2	4	2	32	34
Difference	2	196	0	1	0	5	5

CENTRAL OHIO

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rgs.	Dig.	Ttl.
Ashland	1	0	0	1	3	4	7
Wayne	0	0	0	0	2	6	8
Lorain	2	0	1	1	0	2	2
Richland	0	0	0	0	0	3	3
Holmes	0	0	0	0	0	3	3
Summitt	1	0	0	1	2	3	5
Tuscarawas	1	0	0	1	0	5	5
Crawford	0	0	0	0	0	1	1
Coshocton	2	105	0	0	0	4	4
Stark	1	0	0	1	4	14	18
Gallia	0	0	0	0	0	4	4
Scioto	0	0	0	0	0	1	1
Pike	0	0	0	0	0	2	2
Lawrence	0	0	0	0	1	3	4
Perry	3	29	0	1	3	5	8
Total Aug.	11	134	1	6	18	61	79
Total July	9	0	1	8	11	61	72
Difference	2	134	0	2	7	0	7

Simms-Liberty Deal

DALLAS, Tex., Sept. 16.—Edward T. Moore, president of the Simms Co., announced sale of the Smackover, Ark., production of the company to Liberty Oil Co. of Arkansas. The price was reported between $150,000 and $200,000.

Simms Co., successor to Simms Oil Co., retained some properties of the latter when it was sold to the Tide Water Oil Co. Liberty Oil Co. was organized by a group of Arkansas business men headed by R. N. Vickers. Included in the sale were 45 wells with a daily production of 800 bbls., drilled on 450 acres of leases. The Simms refinery at Smackover, a 3,000-bbl. cracking plant, was not included.

Michigan Oil Revenue

LANSING, Mich., Sept. 16.—Nearly $500,000 have gone into the general fund of the State of Michigan in royalties, bonuses and fees since the levy of a 2 per cent severance tax on the oil and gas industry following development of the first large oil field at Muskegon in 1928-29.

Market Record of Active Oil Stocks Listed on New York Stock Exchange

Compiled by Carl H. Pforzheimer Co., 25 Broad Street, New York City. Members New York Stock Exchange and New York Curb Exchange

1935 High	1935 Low	Week ended Sept. 14 Sales	High	Low	Close	Stocks—	Total shares outstanding	Par value	Dividend rate	Payable or last paid	Dividends paid in 1934	1934 High	1934 Low	1933 High	1933 Low
71	48½	4,400	66¼	64⅝	64⅝	Amerada Corp.	788,675	N.P.	50cQ	7-31-35	$2.00	55⅝	39	47⅝	18½
28	21⅝	11,000	22¾	21⅞	22¼	Atlantic Refining	2,664,904	$25	25cQ	9-16-35	1.00	35¼	21½	32½	12⅝
10⅝	5⅞	12,800	9⅝	9	9⅛	Barnsdall Corp. A	2,195,397	$5	....	5-11-31	....	10	5⅞	11	8
14	3⅜	152,300	14	12⅝	13¼	Columbia Gas & Elec.	11,610,036	N.P.	....	5-15-34	‡ .25	19¼	6⅝	28⅛	9
10½	6½	37,700	9	8¼	8⅛	Consolidated Oil Corp.	13,996,072	N.P.	14c	10-31-34	.12	14¼	7¼	15⅝	5
23	15⅛	32,500	20½	19⅜	19⅜	Continental Oil of Delaware	4,682,722	$5	25c	10-31-35	.50	22⅜	15⅜	19⅝	4⅞
20⅝	11¾	2,800	19⅛	17¾	18	General Asphalt	387,149	$10	....	6-15-32	....	23½	12	27	4⅝
3⅝	1½	2,600	3⅛	2⅞	3⅛	Houston Oil (new)	1,098,618	$25	....	10-17-30	....	5⅝	2½	7⅜	1⅞
1⅞	⅝	4,700	⅝	⅝	⅝	Louisiana Oil Refining	1,302,158	N.P.	....	.....	....	3⅝	⅝	4	⅝
13⅞	9½	9,100	10¾	10	10	Mid-Continent Petroleum	1,857,912	$10	15c	5-15-35	.50	14⅜	9⅛	16	3⅝
20⅞	9	1,100	18¾	17	17¼	National Supply of Delaware	382,591	$25	....	5-15-31	....	21⅛	10	28⅝	4
14¼	9¼	23,700	10⅞	10	10⅛	Ohio Oil Co.	6,563,377	N.P.	15c	6-15-35	.45	15⅞	8½	17⅝	4⅝
11⅜	6¾	2,600	10	9⅛	9⅛	Pacific Western Oil	1,000,000	N.P.	40c	11-30-34	.40	9⅜	5½	9½	3
1⅜	½	300	¾	¾	¾	Panhandle P. & R.	198,770	N.P.	....	.....	....	2½	⅝	4¼	⅝
29⅜	13¾	47,900	27⅞	26	26¼	Phillips Petroleum	4,154,687	N.P.	25c	8-30-35	1.00	20⅜	13⅜	18⅜	4⅝
11⅝	6½	9,700	10¾	9	10½	Plymouth Oil Co.	1,050,000	$5	25c	3-30-35	75c & 4% Stk.	16¾	7¼	17⅝	6¾
10⅛	5⅞	15,500	9	8¼	8⅜	Pure Oil Co.	3,038,370	N.P.	....	9-1-30	....	14⅞	6⅛	15⅜	2½
44¾	29½	1,900	43	41¾	43	Royal Dutch N. Y. shares	fl. 503,642,000	fl. 100	$1.70	8-1-35	1.35	39⅛	28⅝	39¾	17⅝
35⅞	20¾	2,400	29⅛	28¼	29	Seaboard Oil of Delaware	1,244,283	N.P.	15cQ†	9-15-35	1.00	38⅜	20¾	43⅜	15
11½	5½	11,600	10¼	9⅛	9½	Shell Union Oil	13,070,625	N.P.	....	6-30-30	....	11½	6	11⅝	4
98½	63⅛	200	93½	92¼	92¼	Shell Union Oil pfd.	400,000	$100	....	7-1-31	....	89	57	61	28½
18¾	5	3,500	6	5¾	5⅞	Simms Petroleum	461,698	$10	$10 liq.	7-5-35	.55	17⅛	7¼	12⅝	4⅞
11½	6½	1,000	10½	10⅜	10⅜	Skelly Oil	1,008,514	$25	....	12-15-30	....	11½	6	9⅞	3
15¾	10⅝	63,000	11½	11	11¼	Socony-Vacuum	31,154,379	$25	15cQ	9-16-35	.60	19⅞	12½	17	6
38⅞	27⅜	15,700	33½	32⅝	33	Standard Oil of California	13,102,900	N.P.	25c	9-18-35	1.00	42⅞	26½	45	19½
28	23	16,800	25⅞	25¼	25¼	Standard Oil (Indiana)	15,215,677	$25	25cQ	9-16-35	1.00	32⅜	23¼	34	17
32	21	200	21½	21¼	21¼	Standard Oil of Kansas	200,000	$10	50cQ	10-31-34	2.00	41	26	39⅞	12¾
50½	35¾	29,300	45½	43⅝	43⅝	Standard Oil of New Jersey	25,856,081	$25	50cSA‖	6-15-35	1.25	50⅛	39¼	47½	22¾
75½	60½	1,200	69	67½	69	Sun Oil	1,733,013	N.P.	25cQ	9-16-35	$1 & 9% Stk.	74¼	51½	59	35
23¾	16½	28,700	20⅛	19⅛	19⅛	Texas Corp.	9,486,417	$25	25cQ	10-1-35	1.00	29⅜	19⅝	30⅛	10⅜
8⅝	3¼	9,200	6⅞	6	6⅛	Texas Pacific Coal & Oil	880,703	$10	....	12-31-29	....	6½	2½	6½	1⅝
12	7⅝	23,200	9⅜	8⅞	9	Tide Water Associated	5,618,672	N.P.	25cQ	9-6-35	....	14⅜	8	11⅜	3⅛
103⅝	84	1,300	101	99¾	100⅛	Tide Water Associated pfd.	666,524	$100	$1.50Q	10-1-35	¶8.50	87	64½	65¼	23½
20¼	14¾	7,000	18½	17⅜	17⅜	Union Oil of California	4,386,070	$25	25cQ	8-10-35	1.00	20½	11½	23⅜	8½
26½	20⅞	1,300	23⅞	23	23	Union Tank Car Co.	1,200,000	N.P.	30cQ	9-3-35	1.20	25¾	15⅝	22¾	10½
2⅝	1	900	2¼	2½	2¼	Wilcox Oil & Gas	424,839	$5	....	5-10-28	....	5¾	2	5½	2

*Ex-dividend. †Plus extras. ‡Payable in preferred stock. ‖Dividend 4/75 Mission Corp. paid 3-15-35. ¶Dividend of one-half share Barnsdall Ref. Corp.

Market Record of Active Oil Stocks Listed on New York Curb

Compiled by Carl H. Pforzheimer Co., 25 Broad Street, New York City. Members New York Stock Exchange and New York Curb Exchange

1935 High	1935 Low	Week ended Sept. 14 Sales	High	Low	Close	Stocks—	Total shares outstanding	Par value	Dividend rate	Payable or last paid	Dividends paid in 1934	1934 High	1934 Low	1933 High	1933 Low
42	30½	100	41¼	41¼	41¼	Buckeye Pipe Line Co.	200,000	$50	75cQ	9-14-35	$3.00	38	26	39¾	25
4¼	1⅝	3,200	2½	2¼	2½	Carib Syndicate	799,020	25c	....	.....	....	5½	1½	7¾	¼
157	115	50	134	134	134	Chesebrough Mfg. Co.	120,000	$25	$1Q†	9-27-35	11.50	150	116	129	71
2⅞	¾	29,500	2¼	1⅞	2	Cities Service	37,804,394	N.P.	....	6-1-32	....	4¼	1¼	6¼	1½
1¼	½	3,800	1	1	1	Colon Oil	2,200,000	N.P.	....	.....	....	3¼	½	4	⅛
⅞	¼	1,400	⅝	¼	¼	Cosden Oil	399,687	$1	....	.....	....	3⅞	½	3⅞	1⅝
19¾	10	34,600	19¾	17⅝	19⅜	Creole Petroleum	6,974,356	$5	....	.....	....	14⅜	9⅝	12	4⅝
6⅝	4¼	1,200	5⅛	5	5	Darby Petroleum	509,696	$5	25c	7-15-35	.50	7½	4⅛	8	2⅛
2	¾	100	1⅜	1⅜	1⅜	Derby Oil & Refining	263,162	N.P.	....	.....	....	2¼	1	2⅜	⅞
38	34	100	35	35	35	Eureka Pipe Line	50,000	$50	$1Q	8-1-35	4.00	37	30	41⅜	20
74¾	50¼	7,100	61¼	59¼	59½	Gulf Oil Corp.	4,538,101	$25	....	10-1-31	....	76¾	49¾	62	24
64	44	8,400	56¾	53⅞	54	Humble Oil & Refining (new)	8,923,935	N.P.	25cQ	10-1-35	‡1.25	49½	33¼	105½	40
22½	15⅝	10,100	19¾	19¼	19⅜	Imperial Oil of Canada	26,919,871	N.P.	25cSA†‡	6-1-35	.92½	17⅞	12⅝	15⅞	6½
6	3⅝	600	5½	5⅝	5½	Indiana Pipe Line	300,000	$10	15cSA	5-15-35	.35	6⅞	3⅝	8	3⅛
39¾	28	9,900	36⅝	34⅜	35⅛	International Petroleum	14,247,088	N.P.	75cSA†‡	6-1-35	2.28	33⅜	19⅜	23½	8⅜
9½	4⅜	8,600	7⅞	7¼	7⅛	Louisiana Land & Exp.	3,000,000	N.P.	....	.....	....	5	2⅛	2¼	⅛
6¾	3½	200	3⅜	3⅜	3⅜	Lion Oil Refining	270,000	N.P.	....	10-27-30	....	6	3⅜	9½	1¾
9½	4½	9,100	9½	8⅞	9¼	Lone Star Gas	5,382,723	N.P.	15cSA	8-15-35	‖ .16	8⅜	4¼	11⅞	4⅝
5½	4⅛	2,100	5	4⅜	4⅞	Mountain Producers	1,682,182	$10	15cQ	10-1-35	.60	5½	4	6½	2½
18¾	11¾	5,200	17½	17	17	National Fuel Gas	3,810,183	N.P.	25cQ	10-15-35	1.00	18⅛	13⅛	20	10
10½	6¾	1,300	9⅞	9¼	9⅜	National Transit	509,000	$12.50	40cSA	6-15-35	.75	9½	7	10	5½
3¼	2	300	2½	2⅜	2⅜	New Bradford Oil	1,445,202	$5	10cSA	9-16-35	.20	2½	1⅜	2⅛	⅛
2⅛	1	400	2	1⅜	2	New Mexico and Arizona	1,000,000	$1	....	.....	....	2⅜	1	1⅞	⅛
4¼	3	100	4⅝	4⅝	4⅝	New York Transit	100,000	$5	15cSA	4-15-35	.30	4⅜	3	4⅞	3
7	5¼	600	6⅝	6½	6⅝	Northern Pipe Line	120,000	$10	25cSA	7-1-35	.50	7	4⅝	6⅛	4⅜
2⅛	1¼	15,000	2¼	2	2⅛	Pantepec Oil	1,608,700	N.P.	....	.....	....	2⅝	⅞	3⅜	⅛
1½	⅝	800	1¼	1	1⅛	Ryan Consolidated	296,931	N.P.	....	.....	....	3⅜	⅞	4¼	⅝
7½	5½	1,400	7	5⅝	5⅝	Salt Creek Producers	1,496,859	$10	20cQ	8-1-35	.80	7⅞	5½	9¼	3½
28⅜	21⅝	3,600	25⅜	24¼	25	South Penn Oil	1,200,000	$25	30cQ	9-30-35	1.20	26½	17½	22⅛	11
5	3⅞	200	5	4⅜	5	Southern Pipe Line	100,000	$10	15cSA	9-3-35	.25	5½	3½	6	2⅛
52½	45¼	50	48½	48½	48½	Southwest Penna. Pipe Lines	35,000	$50	$1Q	10-1-35	5.00	47	41	43	24½
21⅝	18	2,400	20⅞	20⅜	20⅞	Standard Oil of Kentucky	2,604,790	$10	25cQ†	9-14-35	1.50	18⅜	14⅝	19¼	8⅜
12	7¾	700	11¼	11	11	Standard Oil of Nebraska	188,403	$25	....	6-20-34	.50	16⅞	8¼	20½	11
19¾	11½	1,100	15	14⅛	14½	Standard Oil of Ohio	753,740	$25	....	1-3-33	....	28½	12¼	41	15½
1½	⅞	9,400	1½	1⅛	1½	Sunray Oil	1,610,810	$1	....	4-15-31	....	2	ⅱ	1½	¼
6⅞	5	2,000	5⅝	5¼	5¼	Texon Oil & Land	336,028	N.P.	15cQ	9-30-35	.90	11	4⅜	13¾	6¼

*Ex-dividend. †Plus extras. ‡Payable in Canadian funds. §Includes 50 cents on old $25 par value stock. ‖Payable in preferred stock.

Note.—In comparing highs and lows for the several years in the two tables, it will be necessary to take into consideration cases where there have been stock split-ups.

PERSONAL PARAGRAPHS

HOWARD HUGHES established a record of 353 miles an hour over a measured course in California in his specially built land plane.

D. G. GRAY, manager of the Waggoner Refining Company, Inc., formerly with general offices in Electra, Tex., has moved to Vernon, Tex.

DR. VICTOR HENNY, European representative of the Universal Oil Products Company, Chicago, left London on a short visit to Rumania.

I. J. KILLINGSWORTH and JACK CECIL, both with the Hughes Tool Company, have been transferred to Midland, Tex., from Oklahoma City.

BAIRD H. MARKHAM, director of the American Petroleum Industries Committee, was in Washington, D. C., for a few hours on business for the committee.

JUDGE REFORD BOND, chairman, Oklahoma Corporation Commission, Oklahoma City, Okla., and WILLIAM J. ARMSTRONG, conservation officer of the commission, were visitors to Tulsa this week.

N. R. SHADE and R. E. WOODS, of Los Angeles, Calif., in the geophysical department of General Petroleum Corporation, are at the company's Casper, Wyo., headquarters, compiling reports and mapping from data obtained from their recent seismograph survey of the Overland Dome structure, Carbon County, Wyoming.

D. B. McDANIEL, O. C. RUSSELL and V. L. ROBY, Houston, Tex., oil men, have organized the Romac Oil Company.

V. J. HENDRICKSON, petroleum geologist, of Denver, Colo., motored recently to Banff, Alberta, for a short holiday.

RAY STEVENS, scout for the Shell Petroleum Corporation at Houston, Tex., is spending his vacation at his home in Dallas, Tex.

ALLEN M. PEAIRS, Dallas, Tex., has been named representative for the Ross Heater & Manufacturing Company, of Buffalo, N. Y.

A. T. McDANNALD, of Smith and McDannald, drilling contractors, of Houston, Tex., is spending a few weeks in Wyoming, on a hunting trip.

J. B. SHEEN, representative for the Chicago Pneumatic Tool Company, has been transferred from Oklahoma City, Okla., to Midland, Tex.

J. D. REARDON, traffic manager of the Union Oil Company, has left on a tour of inspection which will include all traffic points as far north as Vancouver, British Columbia.

DWIGHT WHITING, director of the Union Oil Company, and MRS. WHITING, of Beverly Hills, Calif., arrived in New York City last week on the Santa Elena, of the Grace line.

T. J. DONOGHUE, executive vice president of Texas Company, Houston, Tex., has returned from a summer vacation tour in Europe. He was accompanied by MRS. DONOGHUE.

HARRY WIRTH has been employed as salesman for Happy Belting Company with headquarters in Tulsa.

PAUL MAHAFFEY, president, Happy Belting Company, is spending a week in Kansas on a business trip for his company.

E. B. SWANSON, in charge of the production and refining divisions of the Petroleum Administrative Board, has returned to his work in Washington, D. C., following a four weeks' vacation.

E. J. SULLIVAN, of the E. T. Williams Company, Casper, Wyo., left for Wellesley, Mass., accompanied by his daughters, Dorothy and Margaret, including visits to Chicago, Detroit and New York City en route to Wellesley.

WILLIAM MOELLER, JR., vice president of the Southern California Gas Company in charge of natural gas production and transmission, will open the three-day session of the forty-second annual convention of the Pacific Coast Gas Association, of which he is president.

D. L. McDONALD, head of the Wyoming Oil Refining Company, Worland, Wyo.; BRUCE SULLIVAN, Fern Oil Company, Thermopolis, Wyo., and ROY HOLLOMAN, consulting geologist of Denver, Colo., were in Casper, Wyo., recently conferring with officials of the U. S. Geological Survey on the unitization of the Paintrock structure, Big Horn County.

GEORGE CURTZ, formerly with the Ohio Oil Company at Casper, Wyo., is now at Byron, Wyo.

A. PELLISSIER, general manager of the Pechelbronn S.A., has been promoted to the rank of Officer of the French Legion of Honor.

E. H. MOORE, oil producer, Tulsa, has been making the rounds of his properties following his return from a vacation spent in Honolulu.

MISS MARIE FORBAIN, with Dowell Incorporated, has been transferred from the Big Spring, Tex., office of the company to Midland, Tex.

WAYNE C. EDMISTER, chemical engineer in the research laboratories, Standard Oil Company (Indiana), at Whiting, spent part of his vacation in Tulsa, and with MRS. EDMISTER, will also visit Stillwater, Okla.

R. O. YOUNG, student member of the Institution of Petroleum Technologists, London, England, has been awarded the Institution Scholarship tenable at the Royal School of Mines, London, and has recently entered upon the first of the final two years of the course in oil technology.

B. S. SoRELLE, division manager of the newly created Pacific Coast division of the Pure Oil Company, Los Angeles, Calif., is spending about two weeks at his old headquarters in Fort Worth, Tex., where he formerly was division manager of the Texas producing division of the company.

E. BRUCE PETERS, in the Tulsa office of the Marathon Oil Company, has been transferred to the Fort Worth, Tex., refinery offices.

FRANK ALBANESE has been appointed division manager of the Colonial Beacon Oil Company with headquarters at Buffalo, N. Y.

MR. and MRS. F. H. STOVER have returned to Chatham, Ontario, from an extended holiday trip to Oil City, Pa., and other points in Pennsylvania and Ohio.

GORDON IRONSIDE, of Ranchmen's Gas & Oil Company, Ltd., with offices in Calgary, Alberta, has returned from a holiday trip to the Pacific Coast.

C. W. ATKINS, of the Santa Clara Oil Company, San Antonio, Tex., recently returned from a two months' vacation trip through Canada and the northern states.

CHARLES F. BEDFORD, production engineer, Stanolind Oil & Gas Company, Tulsa, has been made district engineer for this company in High Island Field, Texas.

ARTHUR W. CLARK, formerly secretary of the dealer division of the American Oil Burner Association, is now associated with the Davis Engineering Corporation, Elizabeth, N. J.

FAYETTE B. DOW, general counsel of the National Petroleum Association and of the Pennsylvania Grade Crude Oil Association, has returned to Washington, D. C., from a two-week vacation in the Canadian

Do You Remember?

From The Oil and Gas Journal Files

25 YEARS AGO

September 22, 1910

Mrs. Julia Melat, 79 years of age, mother of H. A. Melat of the Gulf organization, dies at her home in Franklin, Pa.

The Prairie Oil & Gas Co. has discontinued its gravity prices for crude oil and posts 40 cents per barrel flat for all grades taken into its lines.

A photograph of a group of Robinson, Ill., oil men reproduced in The Oil and Gas Journal, includes W. G. Skelly, Fred G. Viger, C. W. Titus and F. J. Bradford, now residents of Tulsa, also the late James K. Crawford, J. C. Donnell, Fred H. Hillman, F. E. Hurley and others.

20 YEARS AGO

September 23, 1915

Clint Moore, widely known oil producer of Bartlesville, Okla., and Mrs. Cora B. Leach of Chicago, were united in marriage in Syracuse, N. Y., on September 17.

Mrs. Levi Smith, wife of a prominent Texas and Mexico oil man, died at Terra Alta, W. Va., on September 15.

William C. Warner, Titusville, Pa., oil man and banker, dies in that city after a year's illness. He was 72 years old.

George Harmon's 90,000-bbl. well in the Tampico Field has been put under control. It is less than 100 feet from La Corona's No. 5, another tremendous oil producer.

10 YEARS AGO

September 23, 1925

A. C. Bedford, chairman of the board of directors of the Standard Oil Co. of New Jersey, died at his home in East Norwich, Long Island, on September 21. His age was close to 61 years. He entered the employ of Standard through a subsidiary, the Bergenport Chemical Co., at the age of 17.

A well of the Consumers Fuel Co. in the old Greene County oil field in Pennsylvania starts off at 675 bbls. daily.

Charles Bruce McKinney, age 88 years, who helped finance the third oil well drilled in the Venango district in Pennsylvania in 1860 and who was a producer of oil at the time of his death, passed away in Toledo, Ohio.

woods. He was accompanied on part of the vacation by JOSEPH EASTMAN, federal co-ordinator of transportation, but spent several days with CHARLES L. SUHR, at Mr. Suhr's fishing camp.

F. E. POULSEN, of Van, geologist in the East Texas district for Pure Oil Company, has been placed in charge of the geological department for the Fort Worth producing division, succeeding RALPH A. LIDDLE, who resigned, effective September 1, and plans to return to Venezuela, where he worked five years for the Standard Oil Company, to do research work under auspices of Paleontological Research of which he is a director.

L. W. WHETSTONE, branch manager, Parkersburg Rig & Reel Company, Seminole and Fitts area, Oklahoma, is now on his vacation at scenic points in Colorado.

MISS JOSEPHINE HILL, formerly in the scouting and geological department of the Phillips Petroleum Company, at Breckenridge, Tex., has been transferred by that company to its Midland, Tex., office.

J. H. McLEOD and family, who have been visiting in Petrolia and other points in eastern Canada, have returned to Calgary, Alberta, where Mr. McLeod is western production manager for Imperial Oil, Ltd.

COL. W. C. JOSEY, president of the Rancho Oil Company and Gem Oil Company, Dallas, Tex., and MRS. JOSEY, have returned from a month's vacation spent in Mexico City and other Mexican points of interest.

URBAN B. HUGHES, chief geologist, and ALFRED A. FOOTE, manager of the land and timber department of Eastman, Gardiner & Company, of Laurel, Miss., were business visitors to Houston, Tex., last week.

PAUL von WEYMARN, head of Weymarn Petroleums, Ltd., is returning to Calgary, Alberta, from Europe where he went to arrange financing of further drilling operations in the Alberta fields. Several years ago the Weymarn interests were active in various areas in Alberta.

DANA HOGAN, president of Hogan Petroleum Company, was elected chairman of the committee representing the Mountain View and Edison Fields of Kern County after a close vote, but the Central Committee of California Oil Producers suspended activities before he could take office.

EDWARD B. LOVIE, special agent for the Shell Oil Company, and a past exalted ruler of Lodge No. 99 of the Elks, is recovering from a bite of a black widow spider at his home in Los Angeles.

GEORGE L. MACHRIS, president of the Wilshire Oil Company, who has been confined to his home with illness for the past several weeks, is convalescing rapidly and should be back at his office within the next week or 10 days.

JIM HUGHES, president of Eastman Oil Well Survey Company of Texas, left Houston, Tex., to meet RAY BOLTON, president of Eastman Oil Well Survey Company of Oklahoma in El Paso, Tex., from which point they proceeded to Long Beach, Calif., to attend the annual convention of the four Eastman companies.

JOHN L. ROBINSON, general manager of the West Michigan Consumers Company, Muskegon, Mich., was severely hurt in an automobile accident in Central Michigan last week. Mr. Robinson formerly was an engineer for the Hope Engineering Company, Mount Vernon, Ohio, going to Muskegon seven years ago to build the West Michigan line.

JOHN B. FARNHAM, member of the legal staff of the Securities and Exchange Commission, of Washington, D. C., has been in Denver, Colo., explaining to oil men and dealers the Act relating to the buying and selling of oil royalties.

DR. OSCAR E. REINHOLT, of Iron Mountain, Mich., former California mining and petroleum geologist and author of "Oildom: Its Treasures and Tragedies," told members of the Muskegon, Mich., Rotary Club last week of the increasing importance of Michigan as an oil state, its daily production now exceeding that of any other state east of the Mississippi River.

Long Service But Began Young

Neil H. Marsh, manager of the export department, is one of the oldest employes in point of service in the General Petroleum Corporation, Pacific Coast affiliate of Socony-Vacuum Oil Company, but he started young. Mr. Marsh's father, Fred Marsh, was a prominent figure in the early days of oil production in California, and while still a boy Neil was working in the Kern River, Coalinga and Midway-Sunset Fields.

NEIL H. MARSH

Mr. Marsh, an acknowledged authority on petroleum export trade, was born in Pennsylvania and went to California as a youngster with his parents in 1907. He entered the service of General Petroleum on March 1, 1912, as a clerk in the company's field office at Taft in the San Joaquin Valley. At that time the company was the General Petroleum Company, successor to the original Esperanza Oil & Gas Company, organized by Capt. John Barneson. From 1912 to 1927, during which time the company developed into one of the leading producers and marketers on the Pacific Coast and became affiliated with Socony-Vacuum Oil Company as the General Petroleum Corporation, Mr. Marsh held an assortment of positions. He was transferred to the export department in 1927 and has advanced to the position he now holds. Under his direction General Petroleum has become an important factor in the shipment of crude and refined oil to foreign ports.

T. J. BOYD, JR., representative of Southern Alkali Corporation, Corpus Christi, Tex., is on a business trip through Florida and other southern states. Mr. Boyd, whose offices are in Dallas, Tex., until recently represented Mathieson Alkali Works, with headquarters in the University Club, Tulsa.

DR. SAMUEL T. BUSEY, who drilled the discovery well in the Eldorado Field in Arkansas, in January, 1921, visited the new Crystal Field in Montcalm County, Central Michigan, last week as a guest of W. E. WILLIS, president of Southern Michigan Petroleum, Inc., Jackson, Mich. Doctor Busey also brought in the first well at Tuxpan, Mexico, in 1905.

AARON UPHAUS, in the production department of the Humble Oil & Refining Company, has been transferred from Midland, Tex., to the main offices of the company at Houston, Tex. A. D. EADY, with the same company, has been transferred to Anahuac from Midland. J. W. BRAYBEAL and W. L. WEATHERALL, both in the production department of the company, have been moved to Midland.

FRED HANKS, ALAN W. BOWSER, JOE DAWSON, WESLEY I. NUNN, FRANK MOORE and L. E. GRAY were among officials of Continental Oil Company attending a meeting of sales forces in Denver, Colo.

NEAL H. ANDERSON, president of the Oil Producers Agency of California, who was appointed by GOVERNOR MERRIAM as California's representative at the conference of governors held at Oklahoma City, Okla., has returned to California, where he has resumed activity in the movement to secure approval of the producers contract which has been under consideration for six weeks.

GEORGE M. BEVIER, geologist, Houston, Tex., has returned from a summer vacation spent in Canada.

J. A. WARREN, of the Kinney-Coastal Oil Company, has returned to Denver, Colo., headquarters from a business trip to Wyoming oil fields.

FRANCIS SMITH, Union Oil Company, asphalt specialist, has resigned in order to engage in consulting and advisory work.

H. C. BRETSCHNEIDER, of Denver, Colo., formerly vice president of Midwest Refining Company, went to Oklahoma City, Okla., to attend the meeting of representatives of the oil-producing states.

H. S. WATTS, secretary-treasurer of the Canadian Western Natural Gas, Light, Heat & Power Company of Calgary, Alberta, paid an official visit to the Lethbridge office of the company recently.

ED RIGGS, field man, Bridgeport Machine Company, Hutchinson, Kans., has been made branch manager at McPherson, Kans., succeeding J. M. TAYLOR, who has been transferred to the Lyons, Kans., branch.

F. C. STOVER, of Chatham, Ontario, is convalescing from injuries suffered while working on a drilling outfit in the Dover Field, Kent County, Ontario. His right arm and collar bone were fractured and a finger had to be amputated.

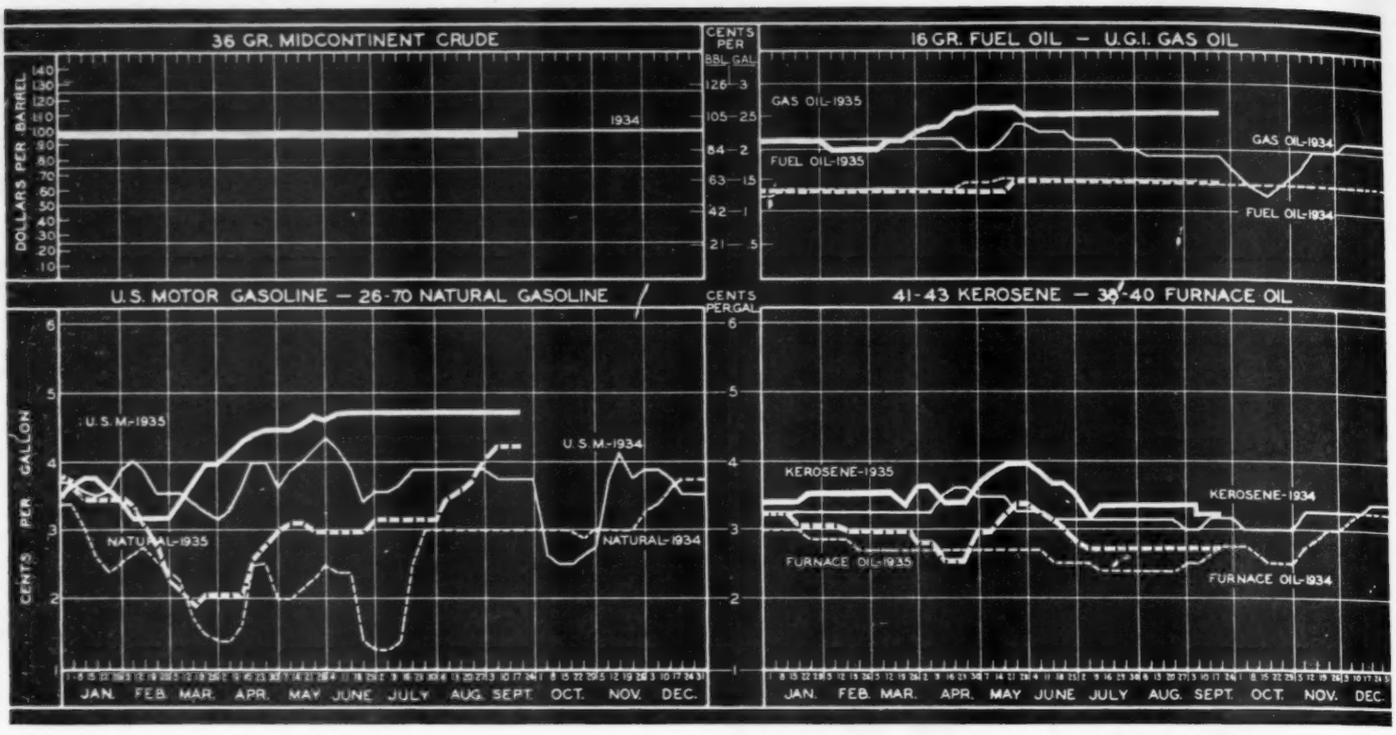
R. F. LEIGHTON, who has been connected with the Market Research Corporation, has been appointed advertising manager of the Tide Water Oil Company. He succeeds WALTER SAUER who has been appointed assistant to the advertising manager of the Tide Water company.

ALEX McGEE, Pure Oil Company foreman in the Greendale Field, Midland County, Michigan, is on vacation in Oklahoma.

JAMES A. FAWCETT has been assigned to a field service post by the Pennsylvania Grade Crude Oil Association. He is a son of E. W. FAWCETT, and a grandson of MAJOR FAWCETT.

S. J. CHESTNUT, former manager of Jarecki Manufacturing Company's oil supply store in Muskegon, has been moved to Stanton, Mich., as manager of the company's new branch near the Crystal Field, Montcalm County.

M. H. PLUMMER has been made head of the land department of the Texas producing division of the Pure Oil Company, Fort Worth, Tex., succeeding F. B. DURY, who resigned to go into independent work. R. A. LIDDELL, formerly chief geologist of the company for the Texas producing division, Fort Worth, has resigned to go into consulting work, and F. B. PAULSON, formerly in charge of the East Texas district geological department, has been transferred and promoted to chief geologist, succeeding Mr. Liddell.



Gasoline Market in Group 3 Territory Maintains Unexpected Steadiness

By T. F. SMILEY

Though exhibiting no eagerness to lay any bets on what another week might bring, refiners and marketers in the Group 3 area were pretty well agreed that this one was recording an unexpectedly satisfactory gasoline market. The trade had seen several reasons why the market should display a pronounced lagging tendency if not a definite slump. There was the seasonal falling off in demand, for instance, not to mention the threat presented by developments in California, the depressing influence likely to be exerted on tank car quotations by the slash in retail prices in the Chicago marketing territory, and sundry other signs and omens.

So sure had some marketers been that cheap gasoline was just around the corner they are reported to have contracted to sell some at low prices, fully expecting to pick up what they needed to fill the orders at much less than current quotations. But prices failed to fall, offerings became actually scarce, and in order to fill the contracts entered into it became necessary in some cases to buy gasoline at an eighth more than was to be received for it.

Why Forecasts Went Haywire

Among other reasons for market forecasts going haywire was failure to give due weight to the announced intention of refiners throughout the Mid-Continent territory voluntarily to cut their runs to stills. There had been a disposition to regard this as mostly talk. Judging from available stocks this week, runs really have been cut.

One of the most remarkable developments of the week was the discovery made by various buyers that little gasoline was obtainable in the spot market in East Texas. Some of those trying hurriedly to scrape up enough to fill immediate needs reported there was positive scarcity in this region whose very name was synonymous not so long ago with wasteful and demoralizing overproduction.

As the touring season passed its peak with the opening of September the smaller refineries sought to reduce their inventories, and this action seemed to give support to the opinion that there was more gasoline on hand than the market could take care of. But intercompany buying removed these minor accumulations without quotations being affected.

Although there is little disposition to minimize the importance which the California situation might easily assume as a market threat if it is not corrected promptly, some market observers take the view that there has been a tendency to overemphasize the gravity of the West Coast menace from the first. These say two salient facts should be considered. One is that the large companies on the Pacific Coast have no intention of shipping cheap gasoline to the eastern markets or to the Gulf Coast. The other is that the smaller companies—the recalcitrant 10 per cent—are not likely to be able to ship enough of it to constitute a serious threat. In the meantime high hopes are held that the whole trouble will be adjusted in time to avert any reduction in offshore prices.

A reported weakening of the Group 3 tank car quotations on third-grade motor fuel in the Chicago market apparently resulted from the sale of a small quantity of extremely low-octane 437-endpoint material, which some refiners assert should be classified as naphtha. Tank car prices on the recognized grades of gasoline were unchanged, leading refiners said, from those which have prevailed for weeks.

Naturals a Shade Easier

Natural gasoline was a shade easier than last week, but prices were holding except for some reported concessions on 18-pound material. As the quotations on this grade come into competition with those on middle-octane motor fuel there is an increased disposition on the part of buyers to get material already made up. Reopening of two stripping plants in the Panhandle as the result of temporary injunctions granted the operators caused a little softening of the market.

Kerosene was unchanged, but it was regarded as likely to be in a stronger position within a week or so as the demand for No. 1 furnace oil rises. The whole range of heating oils was strong, and in the cases of No. 2 and No. 3 gas oils the increased firmness resulted in the higher prices which had been foreshadowed last week. These stocks were tightly held, and where any price concessions were reported the material was likely to be off specification.

Fuel oils showed little change, price shading being noted in the lowest grades only. The lubricants were firm with bright stocks up a half cent.

Refined Oil Market Barometer

There is a general disinclination to enter the market actively until clouds overhanging it have disappeared. Most of the clouds are relatively small, but in the total they cast a shadow too large to ignore. Leaders in the industry express gratification over the manner in which inter company buying continues to serve as a stabilizing influence.

MID-CONTINENT. Gasoline fairly steady. Natural easier. Bright stocks, heating oils up.

EAST COAST. Market unsettled. Buyers expecting lower prices. Tank car gasoline steady.

GULF COAST. Market generally lifeless, but prices holding.

PENNSYLVANIA. Bright stocks up. Neutrals weaker. Gasoline dull.

CALIFORNIA. Gasoline weak. Fuel and diesel firm notwithstanding lower crude prices.

CHICAGO. Gasoline easy, but consumption large. Heating oils firm.

California Crude and Gasoline Are Not Available in East at Lowered Prices

By C. O. WILLSON

NEW YORK, Sept. 16.—Eastern refined markets continue to present an unsettled appearance, with as yet no major changes in quotations. A majority of the trade appear to feel that general conditions in the oil business point to lower rather than firm or advancing quotations on several products, but so far sellers have been able to make their usual sales for this time of the year without giving important concessions, which are the forerunner of general price declines.

The usual reaction of the trade is that business is dull. Buyers are said to be staying out of the market as much as possible in expectation of lower prices. This tends to reduce spot trading to a minimum, and accounts for the attitude that the movement of refined products is exceptionally slow. Actually, according to one sales manager, the shipments of gasoline and several other products from refineries to bulk stations, based on intercompany transactions and long-time contracts between refiners and their regular customers, are running ahead of last year, with prospects that this relative situation will continue through the fall months. He feels that conditions as regard demand are excellent, with better spot marketing conditions assured, provided the present threat of oversupply coming largely from California can be ended, and the fear of dumping removed as a price factor.

So far as this territory is concerned there is nothing new to report as to California crude oil or its products being made available in eastern markets. There are cargo buyers who engage in both coastwise and export business who are watching developments daily and who will quickly shift their purchases from the Gulf Coast, Dutch West Indies, or Mexico, to California as soon as the latter's prices are more attractive. Such a development would definitely point to weakness in prices here and the Gulf Coast and quotations at all points are being closely checked.

It is known that certain domestic and export buyers are particularly interested in the California market on crude oils having a gravity of 30 A.P.I. or higher. The Gulf Coast market on East Texas crude oils continues firm and buyers are not able to make the purchases at the levels they had anticipated for the fall months. East Texas crude is being quoted from $1.17 per barrel up at the Gulf in tanker lots with supplies limited and no one apparently desirous of entering into long contracts on a flat price basis. When the California crude schedules were lowered on August 29 it was thought that a part of this coastwise and export business would shift to the West Coast. The posted prices at the wells on the higher gravity crudes in California range from 43 to 56 cents per barrel depending on grade and field. With a small pipe line and loading charge it is apparent that these prices are competitive with those of the Gulf and the Mid-Continent for shipment to East Coast or European refiners. Buyers so far have not been able to purchase cargo lots at the prices indicated by the posted schedules. It is said that independent refiners in California are paying premiums over the posted prices of from 10 to 20 cents per barrel for the lighter crudes and the cargo offerings reported are only a few cents lower than before the general price reduction was announced. Somewhat the same situation applies to gasoline, gas oil and the various grades of overhead and residual fuels. Substantially lower prices are reported by a few refiners on these products for domestic shipment in California but some pooling of supplies will apparently be necessary before they are an important factor in the coastwise and export cargo markets.

This local angle to the California situation is outlined here because it is the factor which is causing uncertainty in current markets with future developments to have direct bearing on price trends in this section over the balance of the year.

Some observers profess to believe that present California crude schedules can be continued indefinitely without causing a general lowering of markets east of that territory but a majority feel that past history will be duplicated and it will soon be apparent that the present wide differentials in comparative crude oil quotations cannot be maintained and either the one must return to previous levels or the other will come down.

Gasoline Prices Steady

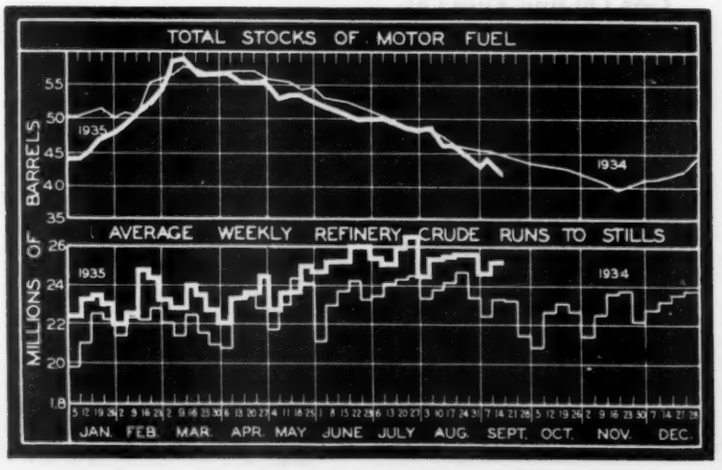
Tank car and barge prices in this territory are steady. The prevailing quotation in New York harbor is 5¾ cents for low octane, 6 cents for middle octane, 6¼ cents for 65 octane and above and 6½ to 6¾ cents for regular branded grades. Barge shipments are available from several sellers one-fourth under these quotations. In Maine it was announced during the week that tank car prices on 65 octane material had been reduced from 7¼ to 6¾ cents. In Buffalo, N. Y., the center of one of the lowest priced areas of the past year, posted dealer prices were reduced 2 cents, and service station 3 cents effective September 12. The present prices exclusive of 4 cents State and 1 cent Federal taxes, are 7 cents posted dealer and 9 cents service station. Just how incongruous these price situations can become is indicated by the fact that the posted tank car price on regular grade gasoline at Buffalo is unchanged at 7.17 cents or more than the delivered dealer price.

In this connection there are reports that the major distributors will shortly make effective important changes in their methods of quoting the various classes of buyers and modify some of their present trade practices. The trend was indicated at the start of the month when one company announced that it would not permit a service station operator to sell their branded products and buy on a tank car basis unless they purchased the gasoline of the company exclusively on a yearly contract basis. This agreement will provide for certain fixed differentials between the service station and tank car buying prices.

A. P. I. Weekly Refinery Statistics

Week Ending September 14, 1935

	Capacity reporting per cent	Daily crude runs (bbls.)	Finished motor fuel (bbls.)	Gas oil and fuel oil (bbls.)
East Coast	100.0	451,000	13,178,000	13,364,000
Appalachian	94.8	101,000	1,963,000	872,000
Indiana, Illinois, Kentucky	95.9	365,000	7,897,000	4,892,000
Oklahoma, Kansas, Missouri	84.8	266,000	4,169,000	4,863,000
Inland Texas	48.5	99,000	1,046,000	1,709,000
Texas Gulf	96.4	561,000	5,011,000	12,306,000
Louisiana Gulf	96.4	123,000	901,000	4,398,000
North Louisiana and Arkansas	90.0	42,000	258,000	455,000
Rocky Mountain	61.9	41,000	519,000	765,000
California	92.6	467,000	7,974,000	64,521,000
Total United States	89.5	2,516,000	42,916,000	108,145,000



Prices

Prices on kerosene, furnace oils, gas oil and fuel oils are unchanged. The movement of all these products is showing a seasonal improvement. Many sales managers are continuing their predictions that the next 30 days will see a tighter market on kerosene and all grades of furnace oils.

The demand for bright stocks has improved and it is the strongest product of the lubricating list. Prices on the Pennsylvania Grade are 24 cents in barrels for exports and one-half cent higher for domestic movement. The demand for Pennsylvania neutrals of 150 to 200 viscosity has also improved. Wax prices are unchanged with the crude scale market fairly active.

The National Oil Marketers Association has issued the preliminary draft of the program for its national convention and trade exhibit to be held in Hotel Stevens, Chicago, October 29 to 31. A large attendance is promised by delegations now forming in the various states and there has been a gratifying early demand for exhibit space. The convention sessions will be held in the mornings only, beginning at 10 o'clock, and the afternoons will be left open for inspection of the displays in the trade exhibit.

PRICES ON REFINED PRODUCTS

All quotations f.o.b. plant in cars for interstate or export movement except as otherwise noted

Prices as of September 17, 1935

The following quotations are exclusive of the federal excise taxes of 1 cent a gallon on gasoline and 4 cents on lubricating oils.

Refinery Gasoline

OKLAHOMA (Group 3)—
U. S. Motor grades:
Below 63 octane ..... .04¾ .04⅞
63-70 octane ..... .05⅝ .05⅝
60-62 400 grade:
Below 63 octane ..... .04¾ .04⅞
63-70 octane ..... .05⅝ .05⅝
64-66 375 ..... .04¾ .05
68-70 360 ..... .05 .05⅛

NORTH TEXAS—
U. S. Motor grades:
Below 63 octane ..... .04¾ .04⅞
63-70 octane ..... .05⅝ .05⅝
60-62 400 ..... .04¾ .04⅞
64-66 375 ..... .04¾ .05

NORTH LOUISIANA (Ark., N. La. and Miss. delivery)—
U. S. Motor grades:
Below 63 octane ..... .05⅛
63-70 octane ..... .06⅛
60-62 400 ..... .05⅛

ARKANSAS (Ark., N. La., Miss. del.)—
U. S. Motor grades:
Below 63 octane ..... .05⅛
63-70 octane ..... .06⅛

CHICAGO (based on Group 3)—
U. S. Motor grades:
Below 63 octane ..... .04¾ .04⅞
63-70 octane ..... .05⅛ .05⅝
60-62 400 ..... .04¾ .04⅞
64-66 375 ..... .04¾ .05
68-70 360 ..... .04¾ .05
Aviation fighting grade ..... .05¾ .06

PENNSYLVANIA (inland refineries)—
55-60 U. S. Motor:
Below 60 octane ..... .05⅛
60-64.9 ..... .06⅛
65-70 octane ..... .06⅝
64-66 375 ..... .05⅝
68-70 350 ..... .06

CALIFORNIA (domestic movement)—
54-58 U. S. Motor ..... .04 .05
58-60 400 ..... .05 .06

EAST COAST—
U. S. Motor, below 60 octane:
*New York (Bayonne) ..... .05⅝
Baltimore ..... .05⅝
U. S. Motor, 60-64.9 octane:
*New York (Bayonne) ..... .06
Philadelphia ..... .06
Boston ..... .06
Baltimore ..... .06
Charleston, S. C. ..... .06
U. S. Motor, 65 and above:
*New York (Bayonne) ..... .06¼
Philadelphia ..... .06¼
Boston ..... .06¼
Baltimore ..... .06¼
Charleston, S. C. ..... .06¼

*All grades of gasoline one-fourth cent less for small barge shipments.

GULF COAST (domestic)—
U. S. Motor grades:
Below 60 octane ..... .05
60-64.9 octane ..... .05¼ .05½
65 octane and higher ..... .05½

Naphtha

PENNSYLVANIA (inland refineries)—
50-52 450 (blending) ..... .05⅝
52-54 450 (blending) ..... .05⅝
54-56 450 (blending) ..... .05½

CHICAGO (based on Group 3)—
50-52 450 (blending) ..... .04⅝ .05
Cleaners' naphtha, 54-58 gr., 200 i.b.p., 20 e.p. ..... .06⅛ .07
Lacquer diluent, 180 i.b.p., 250 e.p. ..... .07⅛ .08
Lacquer diluent, 140 i.b.p., 200 e.p. ..... .08⅛ .09
Rubber solvent, 68-70 gr., 190 i.b.p., 300 e.p. ..... .06⅝ .07
Stoddard solvent, 300 i.b.p., 410 e.p., over 83° flash ..... .06⅝ .06½
Pet. thinner, 290-300 i.b.p., 410 e.p., over 83° flash ..... .06⅝ .06½
V.M.&P. naphtha, 56-58 gr., 190-290 i.b.p., 330° e.p. ..... .06⅝ .07
Petroleum spirits ..... .05⅝ .06

Natural Gasoline

OKLAHOMA (Group 3)—
Grade 26-70 ..... .04½
Grade 18-55 ..... .04⅝ .05
Low vapor pressure grade:
*14 lb. v.p. (max.) ..... .05½ .05⅝
*12 lb. v.p. (max.) ..... .05⅝ .06

NORTH LOUISIANA (Ark., N. La. and Miss. delivery)—
Grade 26-70 ..... .04⅝

NORTH TEXAS—
Grade 26-70 ..... .04
Grade 18-55 ..... .04⅝ .04⅞
*14 lb. v.p. (max.) ..... .05⅝ .05½
*12 lb. v.p. (max.) ..... .05⅝ .05⅝

CALIFORNIA—
75-85 375-390 ..... .04½ .05½

*Nominal.

Kerosene

(All kerosene water white)

OKLAHOMA (Group 3)—
41-43 ..... .03¼ .03⅜

NORTH TEXAS—
42-44 ..... .03⅜ .03½
41-43 ..... .03¼

NORTH LOUISIANA (Ark., N. La. and Miss. delivery)—
41-43 ..... .03⅜

ARKANSAS (Ark., N. La., Miss. del.)—
41-43 ..... .03⅜

PENNSYLVANIA (inland refineries)—
45 ..... .04⅝
46 ..... .04⅝
47 ..... .04⅞

CHICAGO (based on Group 3)—
41-43 ..... .03⅜ .03½
42-44 ..... .03⅝ .03⅝

CALIFORNIA (Pac. Coast market)—
38-40 high burning test ..... .03¼ .04

NEW YORK (Bayonne, N. J.)—
41-43 ..... .04⅝ .04⅝

GULF COAST (domestic)—
41-43 ..... .04¼ .04½

Petroleum Coke

(Prices per ton f.o.b. Chicago area. Refineries absorb freight to 80 cents a ton.)

Pile run	6.00
Direct from still	7.00
Egg, nut, pea	8.00
Lump	8.75

Furnace Oil

OKLAHOMA (Group 3)—
No. 1 prime white, 38-42 ..... .03½ .03⅝
No. 1 straw, 38-40 ..... .03 .03⅛
No. 2 straw, 32-36 ..... .02⅞ .03⅛
No. 2 dark, 32-36 ..... .02⅝ .03
No. 3, 28-32 ..... .02⅝ .02⅝
No. 3, 15 and above, 28-32 ..... .02½ .02⅝

NORTH TEXAS—
No. 1 prime white, 38-42 ..... .03½ .03⅝
No. 1 straw, 38-40 ..... .03 .03⅛

NORTH LOUISIANA (Ark., N. La. and Miss. delivery)—
No. 2, 32-36 ..... .03⅛ .03¼

ARKANSAS (Ark., N. La., Miss. del.)—
No. 2, 32-36 ..... .03⅛
No. 3, 28-32 ..... .03¼

CHICAGO (based on Group 3)—
No. 1 prime white, 38-40 ..... .03½ .03¾
No. 1 straw, 38-40 ..... .03 .03⅛
No. 2 straw, 32-36 ..... .02⅞ .03
No. 2 dark, 32-36 ..... .02⅝ .02⅝
No. 3, zero to 15, 28-32 ..... .02½ .02⅝
No. 3, 15 and above, 28-32 ..... .02¼ .02½

NEW YORK (Bayonne, N. J.)—
No. 1 ..... .04⅝ .04⅝
No. 2 ..... .03⅞ .04
No. 4 ..... .03½ .03⅝

Gas Oil and Fuel Oil

(Gas oil per gal., fuel oil per bbl.)

OKLAHOMA (Group 3)—
U.G.I. gas oil ..... .02½ .02⅝
No. 4, 24-28 ..... .87½ .90
No. 4, 15 and above, 24-28 ..... .75 .80
No. 5 ..... .70 .75
No. 6 ..... .67½ .70
Below 18 fuel oil, industrial .. .65 .67½

NORTH TEXAS—
U.G.I. gas oil ..... .02½ .02⅝
No. 4, 24-28 ..... .87½ .90
No. 5 ..... .72½ .75
No. 6 ..... .67⅜ .70
Below 18 fuel oil, industrial .. .65 .67½

NORTH LOUISIANA (Ark., N. La. and Miss. delivery)—
U.G.I. gas oil ..... .02⅝ .02⅝
10-14 fuel oil, industrial ..... .75 .80

ARKANSAS (Ark., N. La., Miss. del.)—
10-14 fuel oil, industrial ..... .60 .65

CHICAGO (based on Group 3)—
U.G.I. gas oil ..... .02⅝ .02½
No. 4, 24-28 ..... .85 .90
No. 4, 15 and above, 24-28 ..... .72½ .77½
No. 5, 18-22 ..... .65 .70
No. 6, 10-16 ..... .55 .60

Fuel oils of more than 40 cold test generally 5 to 15 cents per bbl. in these areas.

PENNSYLVANIA (inland refineries)—
36-40 ..... .04

CALIFORNIA—
Los Angeles:
30-34 gas oil, per bbl. 1.05 1.35
27 plus Diesel 1.05 1.25
27 plus Diesel (bunkers) 1.25 1.30
12-16 (bunkers at tidewater) .. .87 .95
10-16 (cargo lots) ..... .75 .92
12-17 (tank cars) ..... .60 .95
San Joaquin Valley:
10-18 (tank cars) ..... .55 .75
San Francisco:
27 plus Diesel, per bbl. 1.25
27 plus Diesel (bunkers) 1.35
10-16 (bunkers) 1.00

GULF COAST—
28-30 gas oil ..... .03½ .03⅝
28-30 Diesel (bunkers) 1.70
Bunker C (bulk cargoes) ..... .85 .90
Bunker C (bunkers) ..... .95 1.00

NEW YORK (Bayonne, N. J.)—
27 plus, gas oil ..... .04
28-30 Diesel (lighterage 6⅛ plus per bbl.) 1.65
28-30 Diesel (tank cars) ..... .04
*Bunker C (to ocean-going ships in N. Y. harbor) ..... .95
Industrial fuel (tank cars) ... .03⅝

*Lighterage charge 5c bbl. additional.

Neutral Oil

(Vis. at 100° F. except Pennsylvania and color N.P.A.)

OKLAHOMA (Group 3)—
Zero to 10 Cold Test:
150-3 ..... .10
150-3 ..... .11½
150-4 ..... .10⅝
200-3 ..... .11⅝
200-4 ..... .11½
240-3 ..... .13⅝
240-4 ..... .13½
280-3 ..... .14⅝
280-4 ..... .14
300-3½ ..... .15¼
400-3½ ..... .16
100-2 paraffin oil ..... .05⅝
15-20 Cold Test:
200-3 ..... .10⅝
200-4 ..... .10½
240-3 ..... .12⅝
240-4 ..... .12½
280-3 ..... .13⅝
280-4 ..... .13

GULF COAST—
Pale Oils:
200-3 ..... .07 .07⅛
300-3 ..... .07½ .08
600-3½ ..... .08½ .09
750-3½ ..... .09 .09½
1,200-3½ ..... .09½ .09⅝
2,000-4 ..... .09⅝ .10
Red Oils:
200-5-6 ..... .07 .07½
300-5-6 ..... .07½ .07⅝
600-5-6 ..... .08 .08⅛
750 ..... .08⅛ .09
1,200-5-6 ..... .09½ .09⅝

CALIFORNIA (moving to dom. market)
Pale Oils:
100-2½-3 ..... .07½ .07⅝
200-2½-3 ..... .08 .08⅛
300-3-3½ ..... .08⅝ .09⅝
350-3-4 ..... .10¼ .10⅝
400-3-4 ..... .11½ .12
450-3-4 ..... .12¼ .12½
550-3-4 ..... .12⅝ .13¼
600-3-4 ..... .13¼ .13½
Red Oils:
200-4-5 ..... .08¼ .08⅝
300-5-6 ..... .08⅝ .09
350-5-6 ..... .09⅝ .10
400-5-6 ..... .10¼ .10½
450-5-6 ..... .10⅝ .11
500-5-6 ..... .11 .11½
600-5-6½ ..... .11½ .12¼
700-6½ plus ..... .12½ .12⅝
750-6½ plus ..... .13 .13¼
900-6½ plus ..... .13¼ .13½

PENNSYLVANIA—
150 vis. at 70° F., color, 400-405 flash:
Zero pour test ..... .19 .19½
10 pour test ..... .18 .18½
15 pour test ..... .17½ .18
25 pour test ..... .16½ .17
180 vis. at 70° F., 3 color:
25 pour test ..... .19½ .20
200 vis. at 70° F., 3 color:
Zero pour test ..... .23½ .24
10 pour test ..... .22½ .23
15 pour test ..... .22 .22½
25 pour test ..... .21 .21½

Bright and Steam Refined

OKLAHOMA (Group 3)—
Bright Stocks:
190-200 D, 15-25 ..... .18½
150-160 D, 0-10 ..... .15½
150-160 D, 15-25 ..... .15
150-160 E, 15-25 ..... .14½
100-110 D, 0-10 ..... .14½
Steam refined:
630 green (treated) ..... .09½
600 light green, untreated .... .08½
600 dark green, untreated ..... .05 06
PENNSYLVANIA—
Bright Stocks (Pennsylvania grade, No. 8 color, 145-50 at 510; 540-550 flash):
10 pour test ..... .20½ .21
15 pour test ..... .19½ .20
20 pour test ..... .18½ .19
25 pour test ..... .17½ .18
Steam refined:
600 ..... .10 .10½
650 ..... .11½ .12
600 Pennsylvania flash ..... .12½ .13
630 flash ..... .17½ .18
600 Warren E filtered ..... .13½ .14

Wax and Petrolatum

(Prices per pound)

OKLAHOMA (Group 3)—
124-126 (a.m.p.) w.c. scale .... .02 .0205

PENNSYLVANIA (inland refineries)—
122-124 (a.m.p.) w.c. scale .... .02 .0205
124-126 (a.m.p.) w.c. scale .... .02 .0205

NEW YORK—
Wax in bags fully refined:
123-125 (a.m.p.) wax ..... .0420
125-127 (a.m.p.) wax ..... .0430
128-130 (a.m.p.) wax ..... .0455
130-132 (a.m.p.) wax ..... .0480
133-135 (a.m.p.) wax ..... .0510
135-137 (a.m.p.) wax ..... .0565
124-126 (a.m.p.) w.s. ..... .0200 .0210
124-126 (a.m.p.) y.s. ..... .0200 .0205
Petrolatum in barrels, carload lots:
Dark green ..... .01⅞
Amber ..... .02⅞ .03
Extra amber ..... .03 .03¼
Lily white ..... .06⅝ .06⅞
Snow white ..... .07⅜ .07⅝
Cream ..... .05⅝ .05⅞
CHICAGO (f.o.b. switching district; carload lots in bags, add 3° for a.m.p.)
122-124 (a.s.t.m.) wax ..... .0440 .0450
125-127 (a.s.t.m.) wax ..... .0465 .0475
127-129 (a.s.t.m.) wax ..... .0480 .0490
*130-132 (a.s.t.m.) wax ..... .0520 .0530
*132-134 (a.s.t.m) wax ..... .0545 .0555

*Prices applicable for wax shipped in bulk or bag.

Export Prices

GASOLINE

GULF COAST—
U. S. Motor ..... .04⅝
60-62 400 ..... .04¾
61-63 390 ..... .04⅝ .04⅞
64-66 375 ..... .05

LOS ANGELES—
U. S. Motor grades:
53-55 octane ..... .04
55-65 octane ..... .04 .04¼
65-67 octane ..... .04¼ .04½
67-69 octane ..... .04½ .04⅝
Above 69 octane ..... .04⅝ .05
58-60 400 endpoint ..... .04½ .05

KEROSENE

GULF COAST—
41-43 prime white ..... .03⅞
41-43 water white ..... .03⅞ .04
44 water white ..... .04¼

LOS ANGELES—
41-43 water white ..... .04¼ .04⅝

LUBRICANTS

(Pennsylvania Grade)

NEW YORK (f.a.s. in bbls.)—
Cylinder Stocks:
600 Warren E ..... .18½ .19
600 S.R. unfiltered ..... .16½ .17
650 S.R. unfiltered ..... .18
600 flash S.R. ..... .19 .19½
630 flash S.R. ..... .23 .23½
Bright Stocks:
8 color ..... .24
6½ plus colors in dilution .... .23 .235

NEUTRAL OIL

200-3 color ..... .28 .28½
150-3 color ..... .23 .23½

PARAFFIN WAX

NEW YORK (prices per pound)—
123-125 a.m.p. ..... .035
125-127 a.m.p. ..... .03625
128-130 a.m.p. ..... .03875
130-132 a.m.p. ..... .04125
133-135 a.m.p. ..... .04625
135-137 a.m.p. ..... .04875
Crude scale:
124-126 w.s. ..... .0200 .0205
124-126 y.s. ..... .0195 .02

RETAIL OIL MARKETS

Tank wagon and filling station prices on gasoline and kerosene furnished by the larger marketing firms

Prices as of September 17, 1935

Taxes

The gasoline quotations given in the following tables include the 1-cent federal tax, as well as state, county and city taxes. The gasoline is the regular or standard grade. In most areas a third grade and a premium grade are also available.

Discounts

Under the standard form of commercial consumer contract which went into effect March 1, 1934, save in California, Oregon, Washington, Arizona and Nevada, a discount of 1 cent a gallon off tank wagon or 3 cents a gallon off retail prices is permitted for purchases between 4,000 and 10,000 gallons per month, or 4 cents a gallon off retail prices for purchases in lots of more than 10,000 gallons a month. The minimum delivery is 25 gallons.

Standard Oil Co. (Indiana)

	Gasoline			Kero.
	Tank wag.	Serv. sta.	Inc. tax	tank wag.
Chicago	15.5	16.0	4.0	9.8
Decatur, Ill.	15.5	16.5	4.0	9.8
E. St. Louis	15.2	17.2	4.0	9.5
Joliet	15.5	16.0	4.0	9.8
Peoria	15.5	15.5	4.0	9.8
Quincy	15.3	17.3	4.0	8.0
Davenport, Ia.	15.5	(†)	4.0	9.8
Des Moines	15.3	(†)	4.0	9.6
Mason City	15.7	(†)	4.0	10.0
Sioux City	15.5	(†)	4.0	9.8
Duluth, Minn.	16.3	18.3	4.0	10.6
Mankato	15.9	17.9	4.0	10 2
Minneapolis	15.9	17.9	4.0	10.2
LaCrosse, Wis.	16.9	18.9	5.0	10.2
Green Bay	17.3	19.2	5.0	10.5
Milwaukee	15.3	16.8	5.0	10.1
Madison	16.9	18.9	5.0	10.2
Detroit, Mich.	14.5	15.0	4.0	9.3
Grand Rapids	15.9	18.6	4.0	10.5
Saginaw	16.1	18.1	4.0	9.3
Evansville, Ind.	17.2	19.2	5.0	10.3
Indianapolis	17.4	19.4	5.0	10.5
South Bend	17.6	19.6	5.0	12.0
Fargo, N. Dak.	16.9	18.9	4.0	11.2
Huron, S. Dak.	17.4	19.4	5.0	10.7
Sioux Falls	16 9	18 9	5.0	10.2
Kan. City, Mo.*	14.9	14.9	4.0	7.0
Springfield	14.6	16.6	4.0	8.9
St. Louis	15.2	17.2	3.5	9.5
St. Joseph*	14.9	16.9	4.0	9.2
Wichita, Kans.	14.4	16.4	4.0	6.8
Bartlesville, Ok.	16.0	18.0	5.0	8.8

*State tax 2 cents, 1-cent city tax and 1-cent federal tax.

†Standard Oil Co. (Indiana) has leased all service stations in Iowa.

Discounts to dealers: Undivided accounts, 1½ cents on premium and regular and 2½ cents on third grade off service station prices; divided accounts one-half cent less than undivided. Discounts to dealers in metropolitan Chicago one-half cent larger than rest of Standard of Indiana territory, namely 4 cents and 3 cents on respective grades. Where prices are more than 1 cent below normal, the discounts are one-half cent less than above.

Stanolex Furnace Oil in Chicago

Effective June 27, 1935, f.o.b. Chicago tank wagon prices: Range oil, less than 100 gallons, 8.5 cents; 100-149 gallons, 7.5 cents; 150 gallons and more, 7.0 cents. No. 1 (36-40 lt. stw. zero), less than 100 gallons, 8.5 cents; 100-149 gallons, 7.5 cents; 150 gallons or more, 7.0 cents; No. 2 (30-34, stw. zero), same prices and quantities as No. 1; No. 3 (22-26, zero), less than 150 gallons, 7.2 cents; 150 gallons or more, 6.2 cents. No. 4 (12-16 zero), less than 400 gallons, 7.2 cents; 400 gallons or more, 6.2 cents, viscosity of No. 4, 35 and 100° F.; No. 5, less than 400 gallons, 5¾ cents; 400 gallons or more 4¾ cents.

Rocky Mountain District

CONTINENTAL OIL CO.

	Gasoline			Kero.
	Tank wag.	Serv. sta.	Inc. tax	tank wag.
Denver, Colo.	15.0	20.0	5.0	11.0
Pueblo	15.0	20.0	5.0	13.0
Grand Junction	20.5	22.5	5.0	15.0
Casper, Wyo.	18.5	20.5	5.0	11.5
Cheyenne	18.5	20.5	5.0	13.0
Butte, Mont.	21.0	23.0	5.0	17.5
Billings	19.5	21.5	6.0	16.5
Helena	21.5	23.5	6.0	17.5
Great Falls	20.5	22.5	6.0	17.5
Salt Lake, Utah	19.0	21.0	5.0	16.0
Twin Falls, Ida.	23.0	25.0	6.5	18.0
Boise	22.5	24.5	6.0	18.0
Albu'que, N. M.	20.0	22.0	*6.5	13.0

*One-half cent city tax.

Discount to dealers with or without contract in Continental territory: Undivided dealer discount off service station price, 4 cents; divided dealer accounts, 3½ cents.

Southern District

STANDARD OIL CO. OF KENTUCKY

	Gasoline			Kero.
	Tank wag.	Serv. sta.	Inc. tax	tank wag.
Atlanta, Ga.	20.0	22.0	7.0	12.0
Augusta	20.0	22.0	7.0	14.0
Macon	20.0	22.0	7.0	13.0
Savannah	18.0	20.0	7.0	14.0
Birm'ham, Ala.	21.0	23.0	8.0	12.0
Mobile	20.0	22.0	8.0	10.0
Montgomery	22.0	24.0	8.0	13.5
Jackson, Miss.	19.0	21.0	7.0	11.0
Vicksburg	19.0	21.0	7.0	12.0
Jacksonville, Fla.	18.5	20.5	8.0	10.0
Miami	18.5	20.5	8.0	13.5
Pensacola	19.0	20.0	8.0	11.5
Tampa	17.0	19.0	8.0	11.0
Lexington, Ky.	19.5	21.5	6.0	10.0
Covington,	18.0	20.0	6.0	11.5
Louisville	18.5	20.5	6.0	10.0
Paducah	18.5	20.5	6.0	10.0

In addition to the state tax of 6 cents Montgomery, Ala., has a county tax of 1 cent per gallon and a city tax of 1 cent per gallon on gasoline, and one-half cent per gallon on kerosene. Mobile and Birmingham, Ala., each have a city gasoline tax of 1 cent per gallon. Pensacola, Ala., has a city gasoline tax of 1 cent.

Southwestern District

MAGNOLIA PETROLEUM CO.

	Gasoline			Kero.
	Tank wag.	Serv. sta.	Inc. tax	tank wag.
Dallas, Tex.	15.0	17.0	5.0	7.0
Fort Worth	15.0	17.0	5.0	7.0
Houston	15.0	17.0	5.0	8.0
San Antonio	16.0	18.0	5.0	8.0
El Paso	17.0	19.0	5.0	10.0
Muskogee, Ok.	16.0	18.0	5.0	8.0
Okla. City	16.0	18.0	5.0	8.0
Tulsa	16.0	18.0	5.0	8.0
Ft. Smith, Ark.	14.5	18.0	5.0	8.0
Little Rock	17.0	20.5	7.5	9.5
Texarkana	15.5	17.5	5.0	8.0

Atlantic Coast District

STANDARD OIL CO. OF NEW JERSEY

	Gasoline			Kero.
	Tank wag.	Serv. sta.	Inc. tax	tank wag.
Atl'tic City, N. J.	13.5	17.0	4.0	9.0
Newark	13.5	17.0	4.0	7.5
Annapolis, Md.	14.8	18.3	5.0	10.0
Baltimore	14.3	17.8	5.0	7.5
Cumberland	15.8	19.3	5.0	12.7
Wash'g'n, D. C.	12.3	15.8	3.0	9.0
Danville, Va.	16.6	20.1	6.0	12.9
Norfolk	15.1	18.6	6.0	11.3
Petersburg	15.8	19.3	6.0	11.7
Richmond	15.8	19.3	6.0	11.7
Roanoke	16.8	20.3	6.0	12.9
Charles'n, W. Va.	15.0	18.5	5.0	12.6
Parkersburg	14.3	17.8	5.0	11.2
Wheeling	15.5	19.0	5.0	12.2
Charlotte, N. C.	17.9	21.4	7.0	13.5
Hickory	18.2	21.7	7.0	13.7
Mt. Airy	18.2	21.7	7.0	13.8
Raleigh	17.6	21.1	7.0	13.2
Salisbury	18.0	21.5	7.0	13.6
Charleston, S. C.	16.2	19.7	7.0	11.3
Columbia	17.5	21.0	7.0	13.2
Spartanburg	17.9	21.4	7.0	13.5

Tank wagon gasoline refers to dealer instead of retail prices.

Price basis to dealers: Undivided dealers at regular price less one-half cent. Discount for kerosene, 1 cent off tank wagon price for 25 gallons or more under contract (contract not necessary in Baltimore) except in New Jersey, where no discount (if necessary) is given.

Nebraska

STANDARD OIL CO. OF NEBRASKA

	Gasoline			Kero.
	Tank wag.	Serv. sta.	Inc. tax	tank wag.
Omaha	17.9	19.9	6.0	10.1
McCook	18.6	20.6	6.0	10.8
Norfolk	18.3	20.3	6.0	10.5
North Platte	18.7	20.7	6.0	10.9
Scottsbluff	19.4	21.4	6.0	11.6

Note: Discounts to dealers; where service station gasoline prices are (maximum overall, including rent) as follows: Reliance, 2¼ cents; Standard Red Crown, 2½ cents; Red Crown Ethyl, 3½ cents.

Where service station gasoline prices are below normal resellers' allowances are reduced one-half of the amount below normal, down to the following (minimum overall, including rent): Reliance, 2 cents; Standard Red Crown, 3 cents; Red Crown Ethyl, 3 cents. Discounts to consumers for tank wagon deliveries covered only by Standard Commercial Consumers Contract, effective January 1, 1935.

Ohio

STANDARD OIL CO. OF OHIO

	Gasoline			Kero.
	Tank wag.	Serv. sta.	Inc. tax	tank wag.
Ohio points	17.0	19.0	5.0	*12.5

*Includes state tax of 1 cent.

Pacific Coast Territory

STANDARD OIL CO. OF CALIFORNIA

	Gasoline			Kero.
	Tank wag.	Serv. sta.	Inc. tax	tank wag.
San Francisco	14.0	16.0	4.0	11.5
Los Angeles	11.5	13.5	4.0	10.5
Fresno, Calif.	13.0	14.5	4.0	12.0
Phoenix, Ariz.	17.0	17.0	6.0	‡18.0
Reno, Nev.	16.5	18.5	5.0	13.0
Portland, Ore.	16.5	18.5	6.0	13.5
Seattle, Wash.	16.5	18.5	6.0	13.5
Tacoma	16 5	18.5	6.0	13.5
Spokane	19.5	21.5	6.0	16.5

*Retail prices posted by Standard Stations, Inc., a subsidiary.

†Prices are at company's plant or depots, as company does not operate stations. A 4-cent per gallon discount is given dealers and customers taking tank wagon lots except in Phoenix where discount is 1 cent.

‡Includes 5-cent state tax.

Pennsylvania, Delaware and Part of New England

ATLANTIC REFINING CO.

	Gasoline			Kero.
	Tank wag.	Serv. sta.	Inc. tax	tank wag.
Philadelphia, Pa.	15.0	17.0	4.0	9.0
Pittsburgh	16.0	18.0	4.0	10.0
Allentown	15.5	17.5	4.0	9.0
Erie	15.0	17.0	4.0	8.0
Scranton	15.0	15.0	4.0	10.0
Altoona	16.0	18.0	4.0	10.0
Dover, Del.	15.5	17.5	4.0	10.0
Wilmington	15.5	16.5	4.0	9.0
Springf'd, Mass.	13.2	16.7	4.0	7.5
Worcester	13.3	16.8	4.0	7.5
Hartford, Conn.	12.8	15.8	3.0	7.0
New Haven	12.2	15.7	3.0	7.5
Providence, R. I.	13.0	18.5	3.0	7.0

Note—Tank wagon prices are those applicable to consumers purchasing lots of 100 or more gallons in one delivery.

Central South District

STANDARD OIL CO. OF LOUISIANA

	Gasoline			Kero.
	Tank wag.	Serv. sta.	Inc. tax	tank wag.
N. Orleans, La.	17.5	21.0	‡3.0	12.0
Baton Rouge	16.5	20.0	†7.0	11.5
Alexandria	17.5	21.0	††8.0	10.5
Lafayette	18.0	21.5	‡‡8.0	12.5
Lake Charles	18.0	21.5	††8.0	†11.0
Shreveport	16.0	19.5	†7.0	9.0
Knoxville, Tenn.	20.0	23.5	8.0	14.0
Memphis	18.0	21.5	8.0	11.0
Chattanooga	19.5	23.0	8.0	11.5
Nashville	19.0	22.5	8.0	12.0
Bristol	17.85	20.6	8.0	14.5

*Includes city tax of 1 cent.

‡Includes 2-cent parish tax. †Includes 1-cent parish tax.

Tank wagon gasoline refers to dealer instead of retail prices.

Price basis to dealers: Undivided dealers at dealer price less one-half cent.

Louisiana kerosene prices include 1-cent state tax.

New York and New England

SOCONY-VACUUM CO., INC.

	Gasoline			Kero.
	Post deal	Serv. sta.	Inc. tax	tank wag.
Albany, N. Y.	14.2	17.7	5.0	7.5
*Met. New York	15.05	19.3	5.0	7.25
*Br'kl'n, Queens	14.8	18.8	5.0	7.25
Buffalo	12.0	14.0	5.0	8.0
Rochester	14.0	17 0	5.0	8.5
Syracuse	13.5	16 0	5.0	8.5
Boston, Mass.	13.0	16.5	4.0	6 75
Portland, Me.	15.0	18.5	5.0	7.5
Manch'ter, N. H.	14.8	18.3	5.0	7.75
Burlington, Vt.	16.2	19.7	5.0	8.5

*Includes 2 per cent city sales tax.

Canada*

Imperial 3-Star Gasoline

IMPERIAL OIL, LTD.

	Gasoline			Kero.
	Tank wag.	Serv. sta.	Inc. tax	tank wag.
Hamilton, Ont.	22.0	25.0	6.0	17.5
Toronto, Ont.	22.0	25.0	6.0	17.5
Brandon, Man.	30.3	33.3	7.0	21.8
Winnipeg, Man.	28.7	31.7	7.0	20.2
Regina, Sask.	30.0	33.0	7.0	21.5
Saskatoon, Sask.	32.8	35.8	7.0	24.3
Edmonton, Alta.	32.2	35.2	7.0	23.7
Calgary, Alta.	29.5	32.5	7.0	21.0
Vancouver, B. C.	27.0	30.0	7.0	24.0
Montreal, Que.	20.5	23.0	6.0	17.0
St. John, N. B.	26.0	30.0	8.0	19.5
Halifax, N. S.	26.0	30.0	8.0	19.5

*Imperial gallon used in Canada.

In maritime provinces all dealers get 4 cents off service station price. In all other provinces open dealers get 3 cents off service station price and 1 cent additional to 100 per cent accounts, except Montreal City where open dealers get 2½ cents off service station price with 1 cent additional to 100 per cent accounts.

Naphtha

STANDARD OIL CO. (INDIANA)

	Tank wagon*
Oleum spirits	15.7
V.M.&P. naphtha	14.0
Cleaners' naphtha	15.0
Stanisol	15.0

*Prices include 3-cent Illinois tax, but not 1-cent federal tax or 3 per cent retail occupational tax.

Prices f.o.b. Chicago. Each price subject to discount of 1 cent per gallon for 150-gallon lots if covered by contract.

Retail Price Changes

Standard Oil Co. (Indiana) September 11 advanced station gasoline 2 cents in Mankato; September 12 reduced station gasoline 1.5 cents in Chicago and Joliet; September 12 reduced station gasoline 2 cents in Kansas City and 1 cent in Detroit; August 5 reduced tank wagon kerosene 2.2 cents in Kansas City; September 13 reduced tank wagon gasoline .5 cent in Grand Rapids, reduced tank wagon and station gasoline .7 cent in Saginaw.

Socony-Vacuum Oil Co., Inc., September 10 reduced tank wagon kerosene .25 cent in Boston; September 12 reduced posted dealer 2 cents and station gasoline 3 cents in Buffalo.

Penalty Clause Eliminated

Effective September 12 Standard Oil Co. (Indiana) eliminated from dealer contracts the penalty clause requiring dealers to stand half of the first cent reduction from normal price. Standard inaugurated this change in policy, officials stated, to gain a more practical handling of the discounts problem.

Roosevelt Buys Sias

MUSKEGON, Mich., Sept. 16.—Holdings of Sias Oil Co., of Midland, Mich., were sold last week to the Roosevelt Refinery, of Mount Pleasant, formerly Michigan Central Refining Co., of Muskegon, for $41,200. The sale included producing leases in the original Mount Pleasant field in Greendale Township, Midland County, and sections of Isabella County.

Crew Levick Change

BUFFALO, N. Y., Sept. 6.—All property and business of the Crew Levick Co. of New York State west of Syracuse has been transferred to a new agent, the Petroleum Wholesale Corp. of Olean, N. Y. The Terminal Petroleum Co. has been appointed Crew Levick distributor in the Buffalo area.

Officers of the Petroleum Wholesale Corp., recently organized in Olean, N. Y., are B. M. Marcus, president; Carrol P. Miller, vice president, and Charles R. Macauley, secretary.

Chicago Markets

CHICAGO, Sept. 16.—A feeling of nervousness in tank car and tank wagon-service station gasoline markets has been noted in the last few days. While the basis for this attitude has been psychological, nevertheless along with it have come such developments as new retail price cuts in a number of important points and areas. The net result is an average price structure at the lowest level in some months.

So far as the tank car market is concerned, the offerings of gasoline have been larger recently than for some time. It appeared there was a slight let-up in inter-refinery buying which made possible accumulations of some little gasoline. Jobbers were receiving offers more frequently. There was a shade of easiness to the market tone. At this writing it seems the refiner-buying again is under way. Jobbers have not been buying much in the spot market. Their orders on contract have been extremely heavy for the early autumn period, but anything outside contract material which has not been taken by refiners has acted as a drag on the general market.

The rest of September probably will be a period vital to the market for the rest of the year. Refiners have indicated they will curtail their crude runs and their gasoline output substantially this month.

Crude Oil Prices

Oklahoma, Kansas, North Central and East Central Texas

Corsicana (heavy) (June 17, 1933) .. .85
East Texas $1.00
Other fields.....(See gravity table)

West Texas

Crane, Upton, Crockett, Howard, Glasscock, Mitchell (Sept. 29, 1933).$ .70
Ector, Winkler and Pecos Counties and Lea County, New Mexico (Sept. 29, 1933) ..... .75
Pecos County, Yates shallow Pool (Sept. 29, 1933)* ..... .45
Jones and Fisher Counties*.....
.....(See gravity table)

Rocky Mountain States

Iles, light (Sept. 29, 1933) .....$ .96
Iles, heavy (Sept. 29, 1933) ..... .90
Florence, Colo. (June 17, 1933) ..... .80
Fort Collins and Wellington, Colo. (June 17).....(See Salt Creek prices)

Big Muddy (Sept. 29, 1933) $1.01
Frannie, light (May 1, 1934) ..... .70
Frannie, heavy (Sept. 29, 1933) ..... .62
Salt Creek and LaBarge (Sept. 29, 1933) .....
(See Stanolind Mid-Continent price schedule)
Grass Creek, light (Sept. 29, 1933)...$1.18
Grass Creek, heavy (Sept. 29, 1933)... .62
Elk Basin (Sept. 29, 1933) 1.18
Rock Creek (Sept. 29, 1933) 1.02
Lance Creek (Dec. 16, 1932) ..... .92
Hudson (June 2, 1931) ..... .65
Lost Soldier (Sept. 30, 1933) ..... .88
Hamilton Dome, all grades (Feb. 16, 1935) ..... .57
Torchlight (Sept. 29, 1933) 1.18
Greybull (Sept. 29, 1933) 1.18
Pondera (Sept. 29, 1933) 1.35
Sunburst (July 19, 1935) 1.20
Cat Creek, Montana 1.07
Hogback (Sept. 29, 1933) 1.11
Lea County, N. Mex. (Sept. 29, 1933).. .75
Maljamar (Sept. 29, 1933) ..... .70
Artesia-Jackson (Dec. 1, 1933) ..... .75

Gulf Coast

Grade A and Grade B specification discontinued by leading buyers.
.....(See gravity table)
Hardin (Aug. 8, 1935) ..... $.93
Tomball (see note)* 1.10
Livingston (Sept. 29, 1933)† 1.00
Cleveland (Jan. 11, 1934) 1.00
Greta (June 29, 1935) ..... .80
Refugio, light.....(See gravity table)
Refugio, heavy (June 29, 1935)‡ .... .80
Conroe.....(See Conroe gravity table)
Markham and High Island .....
.....(See Gulf Coast gravity table)
Bosco, La. (Jan. 18, 1935)§.....$ .90

Anahuac and Dickinson posted by Humble August 20, 1935, price of 94 cents per barrel on 30-30.9 gravity with 2 cents per degree increase with top 40 gravity $1.14.

Note—Tomball, effective September 29, by Humble Oil & Refining Co. and October 2 by Magnolia Petroleum Co., and November 19 by Stanolind Crude Oil Purchasing Co.

*Greta posted by Texas Co. †Shell Petroleum Corp. ‡Refugio heavy by Humble Oil & Refining Co.. Cleveland and Hardin posted by Magnolia Petroleum Co. §Bosco posted by Pure Oil Co.

North Louisiana and Arkansas

Smackover, Ark. (all grades) .....$ .70
Tullos, Urania, La. (Jan. 13, 1934) ... .87
Nevada, Ark. (Sept. 29, 1933) ..... .60
East El Dorado (Sept. 29, 1933) ..... .70
Converse, La. (Mar. 17, 1934) 1.03
Elm Grove, La. (Sept. 29, 1933) ..... .75
Holly, La. (Nov. 17, 1934) 1.03
Pleasant Hill, La. (Mar. 17, 1934) 1.03
Zwolle, La. (Mar. 17, 1934) 1.03
Champagnolle, Ark. (Mar. 17, 1934) .. .81
Lisbon, Ark (Mar. 17, 1934) 1.03
Stephens, Ark. (Sept. 29, 1933) ..... .70
Urbana, Ark. (Mar. 17, 1934) ..... .80
Other fields.....(See gravity table)

Middle Western States

OHIO OIL CO
Lima (Feb. 1, 1935) $1.15
Illinois (Jan. 5, 1934) 1.13
Princeton, Ind. (Jan. 5, 1934) 1.13
Plymouth .....Shut in
Midland, Mich. (Sept. 30, 1933)* $1.02
West Branch, Mich. ..... .85
Oceana, Mich. (Oct. 5, 1933) ..... .90
Somerset, Ky. (May 20, 1935) 1.13
Western Kentucky (May 22, 1935) ... 1.13

*Posted by Pure Oil Co. and Simrall Pipe Line Co. Producers Pipe Line Co. pays 5 cents per barrel over Pure Oil Co.'s posted prices. West Branch, Mich., posted by Simrall Pipe Line Co. Somerset, Ky., crude purchased by Ashland Refining Co. Ashland, Ky., and posted prices includes premium. Oceana posted by Old Dutch Refining Co. and Naph-Sol Refining Co.

South Central and Southwest Texas

Darst Creek .....$ .87
Mirando (June 29, 1935) ..... .75
Luling (Sept. 29, 1933) ..... .75
Pettus 1.05
Salt Flat ..... .87
Lytton Springs (Sept. 29, 1933) ..... .95
Duval County (June 29, 1935) ..... .75
Saxet (June 29, 1935) ..... .80
Port Lavaca (July 1, 1935) ..... .80

Eastern States

TIDE WATER PIPE CO.
(Effective July 16, 1935)
Bradford, Pa. $1.95
Allegany, N. Y. 1.95
SOUTH PENN OIL CO.
(Effective July 16, 1935)
Pennsylvania Grade Oil in National Transit Lines (Bradford Field) $1.93
Pennsylvania Grade Oil in Southwest Pennsylvania Lines (Sept. 6, 1935).. 1.72
Pennsylvania Grade Oil in Eureka Pipe Line lines 1.62
Pennsylvania Grade Oil in Buckeye Pipe Line lines 1.52
Corning Grade Oil in Buckeye Pipe Line Co.'s lines 1.32
PENNZOIL CO.
(Effective July 16, 1935)
Pennsylvania Grade Oil in National Transit Lines:
Group A $1.92
Includes Cochran, Franklin, Hamilton and Doolittle districts.
Group B 1.91
Includes Titusville district.
Group C 1.90
Includes Turkey and Tidioute districts.
Group D 1.89
Includes Bear Creek and Porkey districts.
Group E 1.86
Includes Eldeneau, Bull Creek, Rough Run, Carbon, Dipner, Bredlin, McJunkin, Jameson, Kennerdell, Emlenton, Tiona, Lacey and Kinzua districts.
Price depends on length of pipe line haul to plant at Oil City.
PURE OIL CO.
(Effective July 16, 1935)
Cabin Creek, W. Va. $1.62
Bradford Hollow, W. Va. 1.62
Kelly Creek, W. Va. 1.62

Canada

Ontario (Sept. 9, 1933):
Petrolia* $2.10
Oil Springs 2.17
Turner Valley (May 21, 1934):†
Clear naphtha 2.55
Discolored naphtha 2.37
Crude oil, 50 gravity 2.19
Crude oil, 45 to 49.9 ..... 2.07
Crude oil, 40 to 44.9 ..... 1.50

*Imperial Oil, Ltd. †Imperial Oil, Ltd. and Regal Oil & Refining Co.

Mexico

Panuco* .....$.955

*F.o.b. ship, based on May transactions and exclusive of production and export taxes and bar dues.

Crude Prices by Gravities

Gravity—	Oklahoma and Kansas 1	North Texas, Central Texas and East Central Texas 2	North Louisiana and Arkansas 3	Gray County, Texas 4	Carson, Hutchinson and Moore Counties, Texas 5	Conroe, Texas 6	Salt Creek, Wyo. 7	Gulf Coast, Texas and Louisiana 8	Gulf Coast, Texas and Louisiana 9	Cotton Valley, Louisiana 10
Below 20	....	....	....	....	....	....	....	$.82	$.82	....
20-20.9	....	....	....	....	....	....	....	.84	.84	....
21-21.9	....	....	....	....	....	....	....	.86	.86	....
22-22.9	....	....	....	....	....	....	....	.88	.88	....
23-23.9	....	....	....	....	....	....	....	.90	.90	....
24-24.9	....	....	....	....	....	....	....	.92	.92	....
Below 25	*$.76	....	....	....	....	....	....	....	....	$.76
25-25.9	*.78	....	....	....	....	....	....	.94	.94	.78
26-26.9	*.80	....	....	....	....	....	....	.96	.96	.74
27-27.9	*.82	....	....	....	....	....	....	.98	.98	.76
28-28.9	*.84	....	....	....	....	....	....	1.00	1.00	.78
Below 29	.84	$.79	$.79	....	....	....	$.84	....	....	....
29-29.9	.86	.81	.81	....	....	....	.86	1.02	1.02	.80
30-30.9	.88	.83	.83	....	....	....	.88	1.04	1.04	.82
31-31.9	.90	.85	.85	....	....	....	.90	1.06	1.05	.84
32-32.9	.92	.87	.87	....	....	....	.92	1.08	1.06	.86
33-33.9	.94	.89	.89	....	....	....	.94	1.10	1.07	.88
34-34.9	.96	.91	.91	....	....	....	.96	1.13	1.08	.90
Below 35	....	....	....	$.79	$.69	....	....	....	....	....
35-35.9	.98	.93	.93	.81	.71	$1.09	.98	1.12	1.09	.92
36-36.9	1.00	.95	.95	.83	.73	1.11	1.00	1.12	1.10	.94
37-37.9	1.02	.97	.97	.85	.75	1.13	1.02	1.12	1.11	.96
38-38.9	1.04	.99	.99	.87	.77	1.15	1.04	1.12	1.12	.98
39-39.9	1.06	1.01	1.01	.89	.79	1.17	1.06	1.12	1.13	1.00
40 and over	1.08	1.03	1.03	.91	.81	1.19	1.08	1.12	1.14	1.02

STANDARD OIL CO. OF CALIFORNIA AND UNION OIL CO. OF CALIFORNIA

For current purchases of crude oil at the well in California (unless otherwise specified). All gravities above these quoted take lowest price offered in that field. Standard Oil Co. prices effective August 29, 1935, and Union Oil Co. prices August 30, 1935.

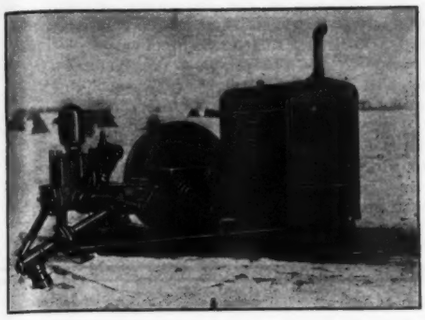
Gravity—	Signal Hill	Seal Beach, Alamitos Heights	Huntington Beach	Inglewood	Playa Del Rey	Olinda-Brea Canon	Athens, Rosecrans, Dominguez	Elwood Terrace	Torrance	Richfield	Kettleman Hills	Whittier, La Habra	Montebello	Coyote Hills	Santa Fe Springs	Newhall, McKittrick, Kern River	Mountain View	Midway-Sunset, Elk Hills, Buena Vista Hills	Lost Hills	Coalinga	Wheeler Ridge	East Coyote	Santa Paula	Orcutt
14-14.9	$.65	$.65	$.65	$.65	$.65	$.65	....	....	$.65	$.65	....	$.65	$.65	$.65	....	$.57	$.57	$.57	$.57	$.57	$.57	$.65	$.57	....
15-15.9	.65	.65	.63	.63	.61	.63	....	....	.63	.63	....	.63	.63	.63	....	.57	.57	.57	.57	.57	.57	.63	.57	....
16-16.9	.63	.63	.61	.61	.58	.61	....	....	.61	.61	....	.61	.61	.61	....	.57	.57	.57	.57	.57	.57	.61	.57	$.57
17-17.9	.61	.61	.59	.59	.55	.59	....	....	.59	.59	....	.59	.59	.60	....	.57	.57	.57	.57	.57	.57	.59	.57	.57
18-18.9	.60	.60	.57	.57	.52	.57	....	....	.58	.57	....	.57	.58	.59	....	.57	.57	.57	.57	.57	.57	.57	.57	.57
19-19.9	.58	.58	.55	.56	.49	.56	....	....	.57	.56	....	.55	.57	.58	....	.57	.57	.57	.57	.56	.56	.55	.57	.56
20-20.9	.57	.57	.53	.55	.46	.55	....	....	.56	.55	....	.54	.56	.57	....	....	.57	.57	.57	.55	.55	.54	.56	.55
21-21.9	.56	.56	.52	.54	.43	.54	....	....	.55	.54	....	.53	.55	.56	$.57	....	.56	.56	.56	.54	.54	.53	.55	.54
22-22.9	.55	.55	.51	.53	.40	.53	....	....	.54	.53	....	.52	.54	.55	.56	....	.56	.56	.56	.53	.53	.52	.54	.53
23-23.9	.54	.54	.50	.52	.39	.52	$.55	....	.53	.52	....	.51	.52	.54	.55	....	.55	.55	.55	.52	.52	.51	.53	.52
24-24.9	.53	.53	.49	.51	.38	.51	.54	....	.52	.51	....	.50	.52	.53	.54	....	.54	.55	.54	.51	.51	.50	.52	.51
25-25.9	.52	.52	.48	.50	.37	.50	.53	....	.51	.50	....	....	.51	.52	.54	....	.53	.54	.54	.50	.50	....	.51	.50
26-26.9	.51	.51	.47	.49	.36	.49	.52	....	.50	.49	....	....	.50	.51	.53	....	.52	.53	.53	....	....	....	.50	....
27-27.9	.50	.50	.46	.48	....	.48	.51	....	....	.48	....	....	....	.50	.52	....	.51	.52	.53	....	....	....	.49	....
28-28.9	.49	.49	.45	.47	....	.47	.50	....	....	.47	....	....	....	.49	.51	....	.50	.51	.52	....	....	....	.48	....
29-29.9	.48	.48	.44	.46	....	....	.48	....	....	.46	....	....	....	.48	.50	....	.49	.50	.51	....	....	....	.47	....
30-30.9	.47	.47	.43	.45	....	....	.46	....	....	....	....	....	....	.47	.49	....	.48	.49	.50	....	....	....	.46	....
31-31.9	.46	....	....	.44	....	....	.45	....	....	....	....	....	....	.46	.48	....	.47	.48	....	....	....	....	....	....
32-32.9	....	....	....	.43	....	....	.44	....	....	....	....	....	....	.45	.47	....	.46	.47	....	....	....	....	....	....
33-33.9	....	....	....	....	....	....	....	$.50	....	....	$.62	....	....	.44	.46	....	.45	.46	....	....	....	....	....	....
34-34.9	....	....	....	....	....	....	....	.49	....	....	.61	....	....	.43	.45	....	....	....	....	....	....	....	....	....
35-35.9	....	....	....	....	....	....	....	.48	....	....	.60	....	....	....	.44	....	....	....	....	....	....	....	....	....
36-36.9	....	....	....	....	....	....	....	.47	....	....	.59	....	....	....	.43	....	....	....	....	....	....	....	....	....
37-37.9	....	....	....	....	....	....	....	.46	....	....	.58	....	....	....	.42	....	....	....	....	....	....	....	....	....
38-38.9	....	....	....	....	....	....	....	....	....	....	.57	....	....	....	.41	....	....	....	....	....	....	....	....	....
39-39.9	....	....	....	....	....	....	....	....	....	....	.56	....	....	....	....	....	....	....	....	....	....	....	....	....

East Coyote, Santa Paula and Orcutt prices posted by Union Oil Co. Playa Del Rey prices subject to 5-cent gathering charge. Elwood Terrace prices f.o.b. ship. Union Oil Co. pays 52 cents for 11-13.9 gravity oil in Coalinga, Kern River, Mount Poso, McKittrick, Midway-Sunset, Elk Hills and Buena Vista Hills.

NEW OR IMPROVED EQUIPMENT

Novo Develops Pressure Pump for Field Pickup Service

Novo Engine Co. of Lansing, Mich., is introducing a new line of pressure pumps for water-supply and oil-field pickup service. These pumps



are double-acting, compact units, built in single and double models, designed for economy from both operation and maintenance standpoints. Sizes range from 15 G.P.M. at 125 pounds pressure to 110 G.P.M. with pressures up to 450 pounds.

For oil-field pickup service, gathering oil from several wells, transfer work, etc., on crude oil or gasoline, the pumps are designed with a special iron trim liquid end. They are built for 24-hour a day service and, according to the manufacturer, will pump for a distance of more than 3 miles. These pumps are furnished with truck mounting for easy portability, or on skids.

The pump illustrated, the manufacturer reports, pumped 55 bbls. of crude oil per hour over a distance of 3½ miles, at a pressure of 300 to 475 pounds. The pump is said to have operated on 1½ gallons of gasoline per hour. Operations were for 24 hours a day, week in and week out.

Bulletins, Booklets and Other Literature for the Trade

The Bridgeport Bulletin, published by Bridgeport Machine Co., Wichita, Kans., has been further brightened by a series of cartoons, "It's an Intricate Lingo the Oil Man Slings," by J. L. (Jimmie) Coss, Jr., Amarillo, Tex., artist.

Booklet KR-7-35, offered by Parkersburg Rig & Reel Co., Parkersburg, W. Va., contains complete information concerning that company's new self-contained pumping unit.

The 4- and 6-cylinder industrial power units, for operating drill rigs, etc., are described in Bulletin H-104, announced by Cummins Engine Co., Columbus, Ind.

Link-Belt Co., 2045 West Hunting Park Avenue, Philadelphia, Pa., is sending on request book No. 1574, covering new combinations and capacity range of P.I.V. gears available from that company.

"Research, the Directing Force of the Chemical Revolution," is among interesting articles in the latest number of Monsanto Current Events, published by Monsanto Chemical Co., St. Louis, Mo.

A clothbound book of 112 pages, "Speed Control Handbook," is ready for distribution by Reeves Pulley Co., Columbus, Ind. Besides describing the variable-speed transmission and vari-speed pulley, the volume gives practical engineering information, with dimension drawings and tables.

A new line of two-stage air-cooled air-compressors is described in a 12-page bulletin (No. 759) sent on request by Chicago Pneumatic Tool Co., 6 East Fortieth Street, New York.

Wilson welding electrodes form the basis of a catalog issued by Wilson Welder & Metals Co., North Bergen, N. J. Helpful tables are included.

The Amsco nickel manganese steel welding-rod is the subject of an illustrated bulletin (No. 10) obtainable from American Manganese Steel Co., Chicago Heights, Ill.

Pennsylvania heavy-duty transformers are described and pictured in a six-page bulletin obtainable from Pennsylvania Transformer Co., 1701 Island Avenue, Pittsburgh, Pa.

The new Akron vapor nozzle for extinguishing oil fires with water by connecting the nozzle to a hose line or any fire hydrant is the subject of a bulletin sent on application by W. L. Walker Co., 1001 South Main Avenue, Tulsa.

New bulletins announced by Worthington Pump & Machinery Corp., Harrison, N. J., are one on steam booster compressors and one on deep-well turbine pumps for economical water supply.

Men Widely Known in the Equipment Field

Ben K. Stroud has joined the sales force of the Los Angeles, Calif., office of the Jones & Laughlin Steel Corp. Since 1923 Mr. Stroud has

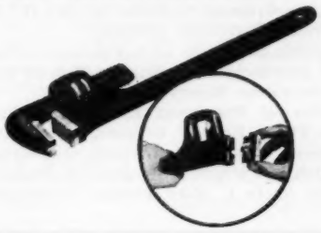
BEN K. STROUD

been in charge of oil-field engineering and service in California fields for the National Tube Co.

Mr. Stroud, a native Californian, after graduation from the University of California, served for several years with the Louisiana State Department of Conservation. In this position he was in charge of oil and gas resources.

Crosslocked Jaw Is a Feature of Walworth Pipe Wrench

An improved pipe wrench with features said to result in added years of useful service has been announced by the Walworth Co., 60 East Forty-second Street, New York. A renewable lower jaw of hardened steel, with cross tongues seating into



cross slots in the handle, is locked in place so as to eliminate backward shear on its pin and prevent loosening in service. The jaw can be easily renewed when required.

A new type of spring is said to have a longer life and easier action. When necessary, it may be replaced without the use of tools. Other new features include a more comfortable hand-grip, larger capacity in the popular 10-inch size, reduced weight and narrowed jaws in the 24-inch size, a Parkerized rust-proof finish and a cadmium-plated nut.

The wrench is of drop-forged steel with its housing forged integrally with the handle, heat-treated for maximum strength.

New Type Daylight Lamp

In accordance with the specifications adopted by the A.S.T.M., the C. J. Tagliabue Manufacturing Co., Park and Nostrand Avenue, Brooklyn, N. Y., offers a new daylight lamp for color determinations which gives an illumination more closely approximating ideal daylight conditions for color tests. This adjustable type Tag-Macbeth daylight lamp is suitable for use with the Tag Saybolt chromometer, A.S.T.M. Serial D156-34T; the Tag union colorimeter, A.S.T.M. Serial D155-34T and D218-34T; also the Tag Robinson colorimeter. The company's Union colorimeters are now equipped with this new lamp, which is attached by an easily adjustable bracket.

Stainless Steel Bar Stock

Jessop Steel Co., Washington, Pa., has developed a composite stainless steel bar stock designated as Silverbond (patents pending), for use in any application where the surface of the bar must have corrosion and temperature resistant properties. The product is described as a web-like structure in which low-carbon inserts to the extent of approximately 40 per cent are mechanically held, as well as welded by pressure applied at high temperatures, so that there is no possibility of separation of the component parts. The cladding can be varied from 10 per cent to 25 per cent dependent upon the application.

New Total Time Meter

For totalizing running or idle time on electrically operated machinery including machine tools, welders, refrigerators, or any individual A-C powered unit, Westinghouse announces the total time meter. The meter registers hours and it is suitable for any application where it is desirable to know the total number of hours during which a circuit is energized or apparatus is in operation. The registering mechanism has four dials and will register 9,999 hours before repeating, approximately 400 days. If desired the meter can be mounted in the superintendent's or foreman's office connecting it to the machine by a single pair of wires.

A. I. M. E. Petroleum Division Announces Houston Program

This year the American Institute of Mining Engineer, Petroleum Division, will hold a three day session in Houston, Texas, October 10-12 inclusive instead of the usual two day meeting. This plan has been adopted to give members opportunity to visit several manufacturing plants.

The principle theme of this year's fall meeting will be "The Estimation of Petroleum Reserves" and the entire morning session of Thursday, October 10 will be devoted to discussion of it.

Dr. H. A. Buehler, president, A.I.M.E. and Secretary A. B. Persons will be in attendance and will be the principal speakers at the banquet.

The program as now arranged follows:

Thursday, October 10

9:00 A.M.—Opening remarks by H. H. Power, chairman, Petroleum Division.

M. Albertson, chairman; L. L. Foley, vice chairman.

General Statement Regarding Problem of Estimating Petroleum Reserves.

Estimation of Petroleum Reserves in Prorated Lime Fields. By P. P. Gregory, Chief Petroleum Engineer, Yates Pool Advisory Committee.

Estimation of Petroleum Reserves in Prorated Oil Fields, by D. L. Katz, Phillips Petroleum Co.

Reservoir Energy.

2:00 P.M.—T. V. Moore, chairman; D. M. Collingwood, vice chairman.

Laboratory Investigation on Acid Treatment of Oil Sands, by F. B. Plummer and R. B. Newcome, Jr., University of Texas. (A.I.M.E. Contrib. 88).

Mud Fluid Problems on the Gulf Coast, by A. D. Garrison, Rice Institute, and W. V. Vietti, The Texas Co.

Properties of Suspensoids and Emulsoids, by W. K. Lewis, Massachusetts Institute of Technology.

Experiments on the Vertical Flow of Gas-liquid Mixtures in Glass Pipes, by J. E. Gosline, Standard Oil Co. of California.

Friday, October 11

Morning—Trip to various manufacturing plants near Houston.

2:00 P.M.—F. B. Plummer, chairman; Eugene A. Stephenson, vice chairman.

Review of Developments in the Use of Schlumberger Electrical Survey Methods, by E. G. Leonardon.

Insoluble Residue Methods and Their Application to Exploitation Problems in the Hobbs and Eunice Fields, Lea County, New Mexico, by G. E. Burpee and W. L. Wilgus, Shell Petroleum Corporation. (Mining and Metallurgy Reprint).

Review of Plugging-back Methods, by Claude P. Parsons, Halliburton Cementing Co.

Water-flooding—G. H. Fancher.

Recent Developments in Acid Treating Methods.

Evening—Banquet, Rice Hotel. Address by H. A. Buehler, President, A.I.M.E.

Saturday, October 12

9:00 A.M.—W. E. Hubbard, chairman; Paul Weaver, vice chairman.

Conservation and Economics, by R. D. Parker, Consulting Engineer.

Producing from Bottom of Reservoir by Setting Casing Deep, Using Shot Perforation Method, and Retreating Upward as the Layers are Exhausted, by Mr. Morris, Humble Oil & Refining Co.

Paper from Anglo-Persian Oil Co., Ltd. Sponsored by J. A. Jameson.

The officers of the Petroleum Division are: Harry H. Power, Chairman; John F. Dodge, Associate Chairman; Eugene A. Stephenson, Secretary-Treasurer. The Chairman, A. W. Ambrose, E. O. Bennett, E. G. Gaylord, H. J. Watson and H. D. Wilde, Jr., are the Executive Committee.

Local Committee for Meeting: Paul Weaver, Chairman; M. Albertson, vice chairman; T. V. Moore, Section Chairman; G. B. Corless, Meeting; S. A. Judson, Registration; J. R. Suman, Entertainment; H. J. Struth, Publicity, H. W. Fletcher, Trips.

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Royalties and leases in all fields, producing and non-producing. Kans., Okla., Tex. Get my big list before buying. James R. Haynes, Grantville, Kansas.

Royalties—Production

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Producing & Non-Producing.
L. H. Witwer
P. O. Box 2453 Tulsa, Okla.

I BUY AND SELL oil royalties and producing wells, East Texas field. B. A. SKIPPER, Longview, Texas.

Royalties—Production

PRODUCING OIL ROYALTIES
for dealers.
H. P. BOWEN
842 Kennedy Bldg., Tulsa, Okla.

GULF COAST ROYALTIES
Bought and Sold.
Producing and non-producing royalties in salt dome fields of Texas and Louisiana.
ZENI OIL COMPANY
412 Esperson Bldg., Preston 4420.
Houston, Texas.

Van—East Texas—Louisiana Royalties
Bought—Sold.
WILLIAM MONROE LAYTON
67 Wall St., Suite 1510. New York City.

J. A. WOLFE AND COMPANY
105 West Adams Street
Chicago, Illinois
Dealers in Oil Royalties since 1918.

Income Producing Royalties
Mid-Continent Field
Harry A. George
427 Perrine Bldg., Oklahoma City, Okla.

Royalties—Production

LEGAL services and reports—South Cal. Oil Fields. W. C. MERCHANT, 227 E. 1st St., Long Beach, Calif.

PRODUCING OIL ROYALTIES
(ALL FIELDS)
Bought, Sold and Quoted.
HENRY L. BAKER CO.,
207 Van Nuys Bldg.,
Los Angeles, Calif.
Telephone Trinity 7391.

CALIFORNIA OIL ROYALTIES
Dealers Only.
Signal Hill—Huntington Beach
Kettleman Hills.
RICHARDS & COMPANY
650 So. Spring St., Los Angeles, Calif.

FOR SALE—1/64th of ⅛ Royalty 500 undivided acres out of 10,240 acres, Sections 7 to 17, Block 1, Pecos County, Texas. GEO. LAMBERT, 505 W. Henry, Tampa, Florida. Offer.

HIGH GRADE producing oil and gas royalties offered to dealers. Billie Smallwood. P. O. Box 2261. Tulsa, Okla.

Situations Wanted

ENGR.—Grad., 15 yrs. exp. in oil refinery constr. and mainte. desires change. Exp. in design and const. of ref. equip. as well as mgmt. of its mainte. dept. Address Box G-832, The Oil and Gas Journal, Tulsa, Oklahoma.

TAX ACCOUNTANT - ENGINEER, college graduate, ten years experience all phases Federal and State Income and Excise tax, wants new connection with future. Address Box G-831, The Oil and Gas Journal, Tulsa, Oklahoma.

GRADUATE REFINING ENGINEER—Gas recovery and stabilization engineer, major company experience, desires change. Address Box G-840, The Oil and Gas Journal, Tulsa, Oklahoma.

ENGINEER—18 yrs. experience, oil refineries and natural gasoline plant design, construction, operation and management. Some equipment manufacture and sales experience. Box G-810, The Oil and Gas Journal, Tulsa, Oklahoma.

Real Estate

Healthful, picturesque country estate; shade, shrubbery, fruit, nuts and swell game; retired but convenient to all centers, $8500. Wm. F. Linn, Elkton, Md.

Incorporations

CHARTERS — Delaware best, quickest, cheapest, most liberal. Free Forms. Colonial Charter Co., Wilmington, Del.

DELAWARE CHARTERS—Fee small; submitted forms. Chas. G. Guyer, 901 Market Street, Wilmington, Del.

CLASSIFIED DISPLAY RATES

Classified Display is set with a border and may be used in one or two column sizes.

1 Inch	*1 time*	*$5.00*
1 Inch	*13 times*	*4.50 per inch*
1 Inch	*26 times*	*4.00 per inch*
1 Inch	*52 times*	*3.50 per inch*

This space may be contracted for over a period of one year from the date of the first insertion and is PAYABLE IN ADVANCE, MONTHLY

CLASSIFIED RATES

Classified advertising rates: First insertion, 35 cents a line; each additional insertion, 25 cents a line. PAYABLE IN ADVANCE. Six words usually make a line. Count as a word each one-letter word and each group of figures. White space computed at regular line rate. Allow two extra lines for blind ads. Ads of less than three lines not accepted. No formal acknowledgment is made, and proofs cannot be shown in advance of publication.

	1 time	2 times	3 times	4 times
3 Lines	*$1.05*	*$1.80*	*$2.55*	*$3.30*
4 Lines	*1.40*	*2.40*	*3.40*	*4.40*
5 Lines	*1.75*	*3.00*	*4.25*	*5.50*
6 Lines	*2.10*	*3.60*	*5.10*	*6.60*
7 Lines	*$2.45*	*$4.20*	*$5.95*	*$7.70*
8 Lines	*2.80*	*4.80*	*6.80*	*8.80*
9 Lines	*3.15*	*5.40*	*7.65*	*9.90*
10 Lines	*3.50*	*6.00*	*8.50*	*11.00*

We reserve the right to withhold all advertising of questionable character. To avoid delay be sure to send remittance with copy. We will set your ad in the smallest amount of space possible and refund all overpayments. One-time insertions will not be run until fully paid. Forms close MONDAY NOON before each issue date.

THE OIL AND GAS JOURNAL
Tulsa, Oklahoma

CLASSIFIED ADVERTISING

For Sale—Equipment

Dismantling Continental Oil Refinery, Sapulpa, Oklahoma

Offering modern late type refinery equipment at salvage prices. A personal inspection will convince you of the excellent condition of this equipment. Some of the principal items are as follows:

6" LINE PIPE

60,000' 6" STANDARD 19-LB. LINE PIPE, 8 THREAD WITH GOOD THREADS AND COUPLINGS READY FOR IMMEDIATE DELIVERY—30c PER FOOT F.O.B. CARS, SAPULPA.

2—525 H.P. Babcock & Wilcox Water Tube Boilers, with Superheaters complete with extra equipment for efficient and economic operation. Guarantee inspection. Rating 160 lbs.

2—National Transit Duplex Steam Hot Oil Pumps—Cap. 240 GPM—1000 lbs. pressure—900° F. Driven by Cross Compound Steam Engines, Condensing type. Pumps are like new, original cost about $26,000 each. Will sacrifice at small fraction of new cost for quick sale.

3—Cross Cracking Stills complete, 1000 barrel capacity each. Already dismantled ready for inspection.

Brown Electric Control & Recording Instruments, complete in every detail —Modern type.

Braun Heat Exchangers capacity 98 to 1000 ft. surface. Floating head type 1, 2 and 4 Pass. Enough sizes to suit your requirements.

Gas Absorption Plant—Designed to operate up to 60 lbs. pressure—Includes full equipment.

Complete Continuous Treater and Doctor plant.

2000—Sterling Condenser Coils, good condition, free from lime and scale, sizes 14½ and 19 sq. ft.

Many other items too numerous to mention such as BUBBLE TOWERS, CENTRIFUGAL WATER PUMPS powered by electric motors, AGITATORS, STEAM PUMPS, FIRE PUMPS, FIRE FIGHTING APPARATUS, CONDENSER AND COOLING BOXES, STEEL STORAGE TANKS, CRANE AND WALWORTH STEEL VALVE and FITTINGS, HOT OIL PUMPS, etc., etc.

WRITE FOR FULL DESCRIPTIVE CIRCULAR

BROWN-STRAUSS CORPORATION

Mail address, P. O. Box 220, Sapulpa, Oklahoma. Phone 1476

Home Office and Plant—Kansas City, Missouri.

Oil Engines

2—600 HP McIntosh Seymour Diesel engines, six cylinder, 16½"x24", 200 R.P.M. Type 6b-33, serial Nos. 1836 and 1837, weight 168,000 lbs. ea.; purchased 1923, actual service 8000 hrs. ea. Out of service 1927. With or without direct connected Worthington Oil pumps. At Tea Pot Dome Pumping Station, Casper, Wyoming.

SONKEN-GALAMBA CORPORATION

64 North Second Street, Kansas City, Kansas.

25 K.W. and 40 K.W. Gas Engines, 220 volts, D.C. Two 100 K.W. Gas Engine Generator Sets, 220 volts, D.C. 7x6 Ingersoll-Rand ER-1 Air Compressor. Six-inch Oster Pipe Threading Machine. Also large stock of lathes, pipe machines, milling machines, etc. Send for our list. Terms to suit.
CINCINNATI MACHINERY & SUPPLY CO.
26 West 2nd St. Cincinnati, Ohio.

4—300 amp. Lincoln Engine driven welder. A-1 condition. Stationary type. Service Co., 3732 Cedar, Cleveland, Ohio.

NEW WIRE ROPE FOR SALE
Drilling, Casing, Rotary and Sand Lines, all grades and construction, ⅜ to 1¼ inch inclusive; lengths up to 6000 feet; Two spools ⅝ Sand Lines, each 4000 feet, (SPECIAL), attractive prices. Address Box G-841, The Oil and Gas Journal, Tulsa, Okla.

FOR SALE—3" x 10" Gaso Portable pumping unit, V belt drive. General Machine & Supply Co., Wichita Falls, Tex.

NEW and USED
BELTING & WIRE LINES
Get our low Prices!
K. C. PIPE & SUPPLY CO.,
Boulder at Cameron—Tulsa, Okla.

Oil Industry Printing

OIL FIELD LEGAL BLANKS
Leases, assignments, releases, township plat books, well records, etc. Request on your letterhead gets free catalog. Olds Press, 215 East Third St., Tulsa, Okla.

Leases—Production

WILL BUY or sell, oil leases and royalties Southeast New Mexico. I follow surveying in the field, and familiar with this territory. Olen F. Featherstone, 201 Bassett Tower, El Paso, Texas.

NEW MEXICO—My weekly scout report furnishes complete and reliable information on New Mexico developments. Send for copy. W. S. Patterson, Santa Fe, N. Mex.

FOR SALE: Leases around drilling wells with interest in wells. F. L. JAMES, Edmonton, Ky.

OIL AND GAS PRODUCTION, AND LEASES
In drilling for gas for our gas plant we have drilled four good shallow Squirrel sand oil wells, each on a different lease. We wish some one to drill each of these farms with us or to sell the wells and leases, or to sub-let the leases on a per cent of the production. We also have some splendid producing gas leases for which we need capital to develop. We have large proven acreage. The La Cygne Gas Company, La Cygne, Kansas.

OIL AND GAS OPERATORS ATTENTION
Well located anticlines vicinity of Tracy, California, discovery proving up cretaceous in northern California. Also good structures along Sacramento Valley, also in cretaceous, for drilling on fair lease division. WALTER METZENBAUM, Hotel Stockton, Stockton, California.

For Sale—Equipment

Dismantling Two Complete Refineries

The Altitude Refinery at Chanute, Kansas, cost over $1,000,000.00 operated until February, 1935. The Marathon Refinery at Boynton, Oklahoma, cost over $2,000,000.00 operated until January 8th, 1934. Will sell all or any items in the plant, consisting of 2,000 and 4,000 bbl. Winkler-Koch pipe still; over 250 pumps of all kinds, pressure, hot oil, centrifugal, etc. All sizes condenser boxes, coils, heat exchangers, complete Carbondale wax plant, two 48", 325 plate wax presses together with all chilling and refrigerating equipment. Two 35 ton Carbondale refrigerating units, complete. Over 1,000,000 barrels of storage capacity, vertical and horizontal, from 100 bbl. to 80,000 bbl. tanks. 100,000 valves and fittings, both high and low pressure, Oakite treated. Over 100 miles of all sizes of pipe, new repair parts, etc. Inventories furnished on request.

Wire, phone, or write,
W. C. Berry or H. J. Galamba

SONKEN-GALAMBA CORPORATION

64 North Second Street, Kansas City, Kansas.

Steel Storage Tanks—Moved and Re-erected

We own and offer up to 150—55,000 bbl. steel storage tanks where are, or cut down and re-erected your grade at great saving. Special transportation rates established any point in Texas. Over 300 other size tanks from 100 bbl. to 80,000 bbls.

Wire, phone, or write, W. C. Berry.

SONKEN-GALAMBA CORPORATION

64 North Second Street, Kansas City, Kansas.

SPECIAL BARGAIN

75,000 ft. 6" Standard 19 lb. pipe, line couplings and complete pumping station. 2—150 H.P. De La Vergne oil engines, direct connected to 2—5½"x 16" Gould triplex vertical pumps 1000 lbs. pressure. All necessary equipment. 2—24'x80' steel buildings with overhead cranes in each. All pipe and equipment in station same as new. Will sell all or any part. Located in Kay County, Oklahoma, 4 miles south of Tonkawa on highway 177. Cash or terms. Also 40,000' of 16" OD welded steel pipe. Wire, phone or write.

SONKEN-GALAMBA CORPORATION

64 North Second Street, Kansas City, Kansas.

Leases—Production

OIL MEN ATTENTION
Two excellent, practically proven blocks East Texas oil leases. Excellent geology by reputable geologist. Also two good West Texas oil structures. Will give substantial interest to responsible party able to drill test wells. Rare opportunity. P. O. Box 1801, Fort Worth, Texas.

$2.00 per ac., 1280 ac., Brewster County, Tex., in fee with all mineral interest, terms cash. E. L. Propst, Charlotte, N. C.

NEW MEXICO Oil and Gas Leases and royalties. Send 50 cents in stamps for new State Oil Map of New Mexico. Roy G. Barton, Clovis, New Mexico.

FOR SALE—40,000 ac. oil leases in Kit Carson, Cheyenne and Kiowa Counties, Colo., 10 yr. leases 25c per acre rental, rentals paid for 1 yr. I furnish leases anywhere in Colo. or Kans. A. P. Tone Wilson, Burlington, Colo.

80 ACRE 3 year oil and gas lease, Sec. 29-14-7, Creek County, Okla. $10.00 per acre rental. C. Cohn, Alamo, Tenn.

Patent Attorneys

REGISTERED PATENT ATTORNEYS
United States and Canada
Before disclosing your invention to anyone, send for blank form:
"Evidence of Conception."
Instructions "How to Establish Your Rights" and complete information FREE!
LANCASTER, ALLWINE & ROMMEL
418 Bowen Building,
Washington, D. C.

Maps

OIL MAPS for ONE DOLLAR each. Paper, ownership maps, size 17x22 inches, on over 200 Texas counties. Send $1.00 each for maps you need. LOGAN MAP CO., Box 1785, FORT WORTH, TEX.

Business Opportunities

FINANCIAL ASSISTANCE
Parties owning several patents and inventions of modern design, will appreciate corr. with parties having sufficient capital to promote mfg. plant and sales. All inventions sure winners in Oil prod. Address P. O. Box 1426, Alexandria, La.

GEOLOGIST desires connection with independent operator in Mid-Continent on percentage basis. Box G-823, The Oil and Gas Journal, 415 Lexington Avenue, New York City.

PARTNER in going business dealing with oil companies. Must have sales ability and take charge of business. Prefer man past 40 years old. $2500.00 will handle. Should pay $250.00 per month salary. Address Box G-830, The Oil and Gas Journal, Tulsa, Okla.

FOR SALE—Independent Jobber—Retail and Wholesale own and control eight Service Stations, 30,000 Gallons gasoline per month, 3 Late Model trucks and tanks, Warehouse, Storage, Tanks and three lots, $5000.00. Have other interests. Address J. H. Webb, Box 245, Eagle Pass, Texas.

Financing

PROSPECTUSES prepared and deals shaped up for registration or exemption under Federal Security Act. Fee basis. John Morris, Seventh Floor, 1237 Market St., Philadelphia, Pa.

OIL AND MINING Companies organized and financed. Moderate charges. JAMES B. MURROW, 299 Broadway, New York.

MILLER, 604 W. Seventh St., Tulsa, Okla. Prospectus preparation and presentation. General assistant in all marketable matters. Correspondence invited.

Index to Advertisers

A

Abercrombie, J S., Co. 67
Abercrombie Pump Co. .....
Air Reduction Sales Co. 1
Allegheny Steel Co. 56
Allsteel Products Mfg. Co., The ..
American Askania Corp. .....
American Cable Company, Inc. ....
American Cast Iron Pipe Co. .....
American Iron & Machine Works..
American Lubricator Co. .....
American Meter Co. 4
American Sand-Banum Co., Inc.... 90
American Steel & Wire Company...
Auer, C. L., and W. W. .....
Axelson Manufacturing Co. .....

B

Bakelite Corporation .....
Baker Oil Tools, Inc. 6
Baroid Sales Co. .....
Barret, William M., Inc. 91
Bethlehem Steel Co. 54
Bradford Motor Works, Inc. 95
Bridgeport Machine Co. .....
Broderick & Bascom Rope Co. ....
Brown Instrument Co., The .....
Buck Stoddard, Inc. .....
Byron Jackson Co. .....

C

Cameron Iron Works, Inc. 67
Caterpillar Tractor Co. .....
Chain Belt Co. .....
Chaplin-Fulton Mfg. Co., The..... 96
Chapman Valve Mfg. Co., The .....
Chemical Process Co., Inc., The.... 2
Chevrolet Motors Co. .....
Chicago Bridge & Iron Works .....
Cities Service Oil Co. .....
Classified Advertising 110-111
Cleveland Trencher Company, The.
Coffing Hoist Co. .....
Continental Oil Co. .....
Continental Supply Co. 51
Cooper-Bessemer Corp., The .....
Coppus Engineering Corp. 77
Crane Co. 3
Crutcher, Rolfs & Cummings.....
Curtin, W. H., Co. .....

D

Darling Valve & Mfg. Co. 21
Dart, E. M., Mfg. Co. 94
Davis Regulator Co. .....
Dean Core Barrel Manufacturing Sales and Service .....
Devine, J. P., Mfg. Co., Inc. ... 96
Dodge Division-Chrysler Motors ..
Dodge Mfg. Corp. .....
Doheny Stone Drill Co. ..Front Cover
Dowell Incorporated .....
Dresser, S. R., Mfg. Co. .....
DuPont DeNemours & Co., Inc., E. I.

E

Eagle-Picher Lead Co. .....
Eastman Oil Well Survey Co. .....
Economy Electric Lantern Co.....
Edward Valve & Mfg. Co., Inc., The
Emsco Asbestos Co. .....
Emsco Derrick & Equipment Co....
Ethyl Gasoline Corporation 54-55
Everstick Anchor Co. .....

F

Filtrol Co. of California .....
Firestone Tire & Rubber Co. .....
First National Bank & Trust Co. of Tulsa, The .....
First National Bank, Fort Worth...
Fisher Governor Co. 82
Fort Worth National Bank .....
Four Wheel Drive Auto Co., The..
Foxboro Co., The 45
Frick-Reid Supply Corporation ....

G

Gardner-Denver Company .....
Garlock Packing Co., The .....
Gaso Pump & Burner Mfg. Co.....
Gasoline Products Co., The .....
Gates Rubber Co., The .....
General American Tank Storage and Terminal Co. .....
General Electric Company .....
General Motors Truck Co. .....
Gilbert & Parker Manufacturing Co. 35
Gott, H. P., Mfg. Co. 94
Grant Oil Tool Co. .....
Great Lakes Fuel Corporation ..... (Distributors for Great Lakes Coal & Coke Co.)
Green Head Bit & Supply Company
Guiberson Corp., The .....
Gulf Refining Co. .....

H

Halliburton Oil Well Cementing Co. .....Inside Front Cover and 52
Hanlon-Buchanan, Inc. .....
Harrisburg Steel Corporation .....
Hazard Wire Rope Company..... 91
Heeter, C. M., Sons Co. 94
Helland Research Corporation .....
Hercules Motors Corporation .....
Hewitt Rubber Corporation .....
Hills-McCanna Co. .....
Hoard Exploration Co. .....
Hobart Bros. Co. .....
Houston Oil Field Material Co., Inc. 67
Hughes Tool Co. .....Back Cover
Humble Oil & Refining Co. .....
Hydril Co. .....Front Cover

I

Illinois Steel Co. .....
Ingersoll-Rand Co. .....
International Derrick & Equipment Co., The .....
International Harvester Co. of America, Inc. 47
International Nickel Company, Inc., The .....

J

Jarecki Manufacturing Co. .....
Jenkins Bros. .....
Jerguson Gage & Valve Co..... 90
Johns-Manville Corporation 93
Johnston & Jennings Co. (Ocsco Division) 74
Jones & Laughlin Steel Corp. .....

K

Kellogg, M. W., Co., The 25
Kennedy Valve Mfg. Co., The ...
Kibele Manufacturing Co. .....
Kidde & Company, Walter .....

L

Landis Machine Co., Inc. .....
Lane-Wells Co., The .....
Larkin Packer Co...Inside Back Cover
Layne and Bowler Co. .....
Leonard Construction Co. .....
Lincoln Electric Co., The .....
Linde Air Products Co., The .....
Line Scales Co., Inc. .....
Lucey Products Corp. 36
Ludlow Valve Mfg. Co., The 82
Lufkin Foundry & Machine Co.....
Lummus Co., The 28
Lunkenheimer Co., The .....

Mc

McClintic-Marshall Corp. 54
McCord Radiator & Mfg. Co. 79
McEvoy, J. H., & Co. .....
McGregor Working Barrel Company

M

MacClatchie Mfg. Co. 67
Macwhyte Co. .....
Magnolia Petroleum Company .....
Maloney Tank Mfg. Co. .....
Manhattan Rubber Mfg. Division, The .....
Marmon-Herrington Co., Inc. .....
Martin-Decker Corp. 75
Mason-Neilan Regulator Co. .....
Mepham, Geo. S., Corp. .....
Merco Nordstrom Valve Co. .....
Mid-Co Tool & Supply Co. .....
Midwest Piping & Supply Company, Inc., The .....
Miller & Co., Inc., Max H. .....
Miller Fuel Engineering Co., Inc...
Miller Sand Pump Co. .....
Mission Mfg. Co. .....
Monsanto Chemical Co. .....
Moore, Lee C., & Co., Inc. .....
Muskogee Iron Works .....

N

National Bank of Tulsa 20
National Lead Co. .....
National Supply Co., The .....
National Tank Co. .....
National Transit Pump & Machine Co. .....
National Tube Co. .....
Norvell-Wilder Supply Co. .....

O

Oil Center Tool Co. .....
Oil Well Supply Company .....
Oklahoma Brass and Iron Works
Okmulgee Supply Corp. .....
Oxweld Acetylene Co. .....

P

Parkersburg Rig & Reel Co., The..
Parsons Co., The Ralph M. .....
Patterson-Ballagh Corporation ....
Penberthy Injector Co. 19
Petroleum Electric Power Club 76
Petroleum Specialty Company, The
Phillips, Charles, Tool Co. 93
Pittsburgh-Des Moines Steel Co. ....
Pittsburgh Equitable Meter 42
Pittsburgh Steel Company .....
Prest-O-Lite Co. .....
Pure Oil Co. .....

R

Reading Iron Co. 95
Rector Well Equipment Co., Inc....
Reed Roller Bit Co. .....
Republic Rubber Co., The 40
Republic Steel Corp. 64-A, 64-B
Roebling's, John A., Sons Co. .....
Ross, Dewey T., Inc. .....
Ryerson & Son, Inc., Joseph T. 80

S

Security Engineering Co. 44
Shaffer Specialty Co., The .....
Shaffer Tool Works 67
Shand & Jurs Co. .....
Shell 33
Shull Perforating Co. .....
Sinclair Refining Company, Inc. ...
Skinner Co., M. B. .....
Smith Company, E. M. .....
Smooth-On Mfg. Co. .....
South Chester Tube Co. .....
Spang, Chalfant & Co., Inc. .....
Sperry-Sun Well Surveying Co.... 90
Square D Company, Inc. .....
Star Drilling Machine Company....
Staynew Filter Corp. .....

T

Taylor Forge & Pipe Works.....
Taylor Instrument Companies .....
Texas Iron Works .....
Thermoid Rubber Co., The .....
Timken Roller Bearing Co. .....
Timken Steel & Tube Co. .....
Titusville Iron Works Co., The ....
Toledo Pipe Threading Machine Co.
Tretolite Co. 48
Truscon Laboratories, The .....
Tube Turns, Inc. .....
Tulsa Chamber of Commerce .....
T.V.P. Corporation, The .....
Twin Disc Clutch Co. 71

U

Union Carbide & Carbon Co. .....
Union Carbide Sales Co. .....
Union Wire Rope Corp. .....
United States Rubber Company ...
U. S. Steel Corp. subsidiaries.....
Universal Oil Products Co. 23

V

Vellumoid Co., The .....
Vogt, Henry, Machine Co. .....
Vortox Manufacturing Company ..

W

Walworth Co. .....
Warren Petroleum Co. 38
Waukesha Motor Company .....
Williams & Co., J. H. .....
Williams & Co., C. K. .....
Williamsport Wire Rope Co. .....
Wilson-Snyder .....
W. K. M. Co., Inc. .....
Worthington Pump and Machinery Corp. .....
Wyatt Metal & Boiler Works .....

Y

Yale & Towne Mfg. Co., The .....
Youngstown Sheet & Tube Co., The

Oil Man's Calendar

September

18-20—Atlantic City, N. J., National Petroleum Association, annual meeting, Hotel Traymore.

18-20—Hot Springs, Ark., North American Gasoline Tax Conference.

24-25—Toledo, Ohio, Ohio Petroleum Marketers.

October

3—Los Angeles, California Natural Gasoline Association.

7-9—Detroit, Mich., National Association of Petroleum Retailers, Detroit-Leland Hotel.

10-12—Houston, Tex., mid-year meeting of Petroleum Division of A.I.M.E.

14-18—Chicago, American Gas Association, annual convention, Palmer House.

14-18—Atlantic City, N. J., American Gas Association, Manufacturers' Division.

14-18—Louisville, Ky., National Safety Council, twenty-fourth annual safety congress.

14-19—Oklahoma City, Okla., National Tax Association, Oklahoma Biltmore Hotel.

16-17—Mexico City, Mexico, mid-year meeting A.A.P.G. and seventh annual meeting, San Antonio section A.A.P.G.

20-26—Paris, France, International Congress of Mining, Metallurgy and Applied Geology.

29-31—Chicago, National Oil Marketers Association, annual convention, Hotel Stevens.

November

4-5—Dallas, Tex., I.P.A.A., annual convention.

11-14—Los Angeles, Calif., American Petroleum Institute, sixteenth annual meeting, Biltmore Hotel.

1936

March

19-21—Tulsa, American Association of Petroleum Geologists, twenty-first annual meeting.

April

16-17—Cleveland, Ohio, National Petroleum Association.

20-25—Houston, Tex., Oil Equipment and Engineering Exposition.

May

13-15—Tulsa, Natural Gasoline Association of America, fifteenth annual convention, Mayo Hotel.

16-23—Tulsa, International Petroleum Exposition and Congress.

June

18-19—State College, Pa., annual meeting, Pennsylvania Crude Oil Association.